IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Jeff EDER

Serial No.: 10/743,417

Filed: January 3, 2004

For: AN AUTOMATED METHOD OF AND SYSTEM FOR IDENTIFYING, MEASURING AND ENHANCING CATEGORIES OF VALUE FOR A VALUE CHAIN

Group Art Unit: 3695

Examiner: Sigfried Chencinski

Brief on Appeal

Sir or Madam:

The Appellant respectfully appeals the rejection of claim 125, claim 126, claim 127, claim 128, claim 129, claim 130, claim 131, claim 132, claim 133, claim 134, claim 135, claim 136, claim 137, claim 138, claim 139, claim 140, claim 141, claim 142, claim 143, claim 144, claim 145, claim 146, claim 147, claim 148, claim 149 and claim 150 in the November 12, 2008 Office Action for the above referenced application. The Table of Contents is on page 2 of this paper.

This brief on appeal is being submitted in response to the notice of non-compliant appeal brief mailed on December 1, 2009.

Table of Contents

1. Real party in interest

Asset Reliance, Inc. (dba Asset Trust, Inc.) is the Appellant and the owner of 100% interest in the above referenced patent application.

2. Related appeals

An Appeal for U.S. Patent Application 09/761,670 filed on January 19, 2001 may be affected by or have a bearing on this appeal. An Appeal for U.S. Patent Application 10/750,792 filed on January 3, 2004 may be affected by or have a bearing on this appeal. An Appeal for U.S. Patent Application 11/278,419 filed on April 1, 2006 may be affected by or have a bearing on this appeal

3. Status of Claims

Claim 125, claim 126, claim 127, claim 128, claim 129, claim 130, claim 131, claim 132, claim 133, claim 134, claim 135, claim 136, claim 137, claim 138, claim 139, claim 140, claim 141, claim 142, claim 143, claim 144, claim 145, claim 146, claim 147, claim 148, claim 149 and claim 150 are rejected and are the subject of this appeal. Claims 1 through 124 are cancelled (they were cancelled before the first Office Action). No other claims are pending.

4. Status of Amendments

There are no amendments pending.

5. Summary of Claimed Subject Matter

One embodiment of an automated method of and system for identifying, measuring and enhancing categories of value for a value chain is best depicted in Figure 1 through 10 of the specification. Figure 1 gives an overview of the major processing steps which include preparing data for use in processing and transforming the data into a predictive model.

Independent Claim 125 - A first embodiment of the system for identifying, measuring and enhancing categories of value for a value chain is exemplified in independent claim 125 where a process uses a computer system to analyze data using a plurality of models, select a set of variables from the analyzed data, refine the variable selection using an induction stage before using the best set of variables from the induction stage to develop a final model. Support for the specific steps contained in the claim can be found in the specification and drawings as detailed below:

The computer system is described in FIG. 3, reference numbers 100, 110, 111, 112, 113, 114, 115, 116, 117, 118, 120, 121, 122, 123, 124, 125, 126, 127, 128, 130, 131, 132, 133, 134, 135, 136, 137 and 138 and line 16, page 15 through line 4, page 17 of the specification.

a) receiving first input data into a plurality of initial predictive models to develop an initial model configuration by selecting an input data set from the plurality of predictive models using a stepwise regression algorithm after a training of each predictive model type is completed - is described in FIG 6A, reference numbers 303, 304, 305 and 306 and line 30, page 44 through line 6, page 49 of the specification;

b) receiving the input data set from said initial model configuration and a second input data as inputs into a second, induction model stage to develop an improvement to said initial model configuration as an output, said second input data comprising one of said first input data, data not included in said first input data, and a combination thereof - is described in FIG. 6A, reference numbers 308, 309 and 310, FIG. 6C reference number 321 and line 24, page 49 through line 8, page 51 of the specification;

c) receiving said second model stage output as an input into a third predictive model stage to develop and output a final predictive model – is described in FIG. 6C reference numbers 347 and 348 and line 17, page 57 through line 15, page 58.

Claim 126 - The limitations associated with dependent claim 126 are described in a number of places including FIG. 6A, reference numbers 308 and 309 and line 24, page 49 through line 20, page 50 of the specification.

Claim 127 - The limitations associated with dependent claim 127 are described in FIG 6A, reference numbers 303, 304, 305 and 306 and line 30, page 44 through line 6, page 49 of the specification.

Claim 128 - The limitations associated with dependent claim 128 are described in a number of places including FIG. 6B, reference numbers 325, 330 and 335 and line 25, page 38 through line 6, page 41 of the specification of cross referenced U.S. Patent Application 08/999,245.

Claim 129 - The limitations associated with dependent claim 129 are described in a number of places including FIG. 6A, reference numbers 305 and 306, and line 3, page 46, through line 8, page 46 of the specification.

Claim 130 - The limitations associated with dependent claim 130 are described in a number of places including FIG. 6A, reference numbers 308 and 309 and line 30, page 48 through line 32, page 48 of the specification.

Claim 131 - The limitations associated with dependent claim 131 are described in a number of places including FIG. 6C reference numbers 347 and 348 and line 17, page 57 through line 15, page 58.

Claim 132 - The limitations associated with dependent claim 132 are described in a number of places including line 1, page 21 through line 12, page 21 and line 29, page 73 through line 4, page 74 discusses the transformation of data. The use of the transformed data to develop predictive models is described in FIG 6A, reference numbers 303, 304, 305, 306, 308, 309, 310; FIG. 6B, reference number 321; FIG. 6C reference numbers 347 an 348; line 30, page 44 through line 8, page 51 and line 17, page 57 through line 15, page 58 of the specification

Independent Claim 133 - A second embodiment of the system for identifying, measuring and enhancing categories of value for a value chain is exemplified in independent claim 133 where a machine analyze data using a plurality of models, select a set of variables from the analyzed data using stepwise regression, refine the variable selection using an induction stage before using the best set of variables from the induction stage to develop a final model. Support for the specific steps contained in the claim can be found in the specification and drawings as detailed below:

a) means for receiving, processing and storing data; The means for receiving processing and storing data is described in FIG. 3, reference numbers 100, 110, 111, 112, 113, 114, 115, 116, 117, 118, 120, 121, 122, 123, 124, 125, 126, 127, 128, 130, 131, 132, 133, 134, 135, 136, 137 and 138 and line 16, page 15 through line 4, page 17 of the specification.

b) means for receiving first input data into a plurality of initial predictive models to develop an initial model configuration by selecting an input data set from the plurality of predictive models using a stepwise regression algorithm after a training of each predictive model type is complete, receiving the input data set from said initial model configuration and a second input data as inputs into a second, induction model stage to develop an improvement to said initial model configuration as an output, said second input data comprising one of said first input data, data not included in said first input data, and a combination thereof and receiving said second model stage output as an input into a third predictive model stage to develop and output a final predictive model - is described in FIG 6A, reference numbers 303, 304, 305, 306, 308, 309, 310; FIG. 6B, reference number 321; FIG. 6C reference numbers 347 an 348; line 30, page 44 through line 8, page 51 and line 17, page 57 through line 15, page 58 of the specification.

c) a graphical user interface to allow a user to identify one or more data sources for said predictive modeling method, and to at least one of display, print, and save to one of a printer, a data file, and an application program using the output resulting from the final, third stage model –

the graphical user interface for identifying data sources comprise the system settings data window (701) as shown in FIG. 4 and FIG. 5, reference number 202 and as described in line 15, page 27 through line 33, page 28 of the specification. The graphical user interface for displaying, printing or saving the output from the predictive model comprise the report selection and display data window (705) as shown in FIG. 4 and FIG. 8 and the value mentor reports data window (708) as shown in FIG. 4 and FIG. 9, reference numbers 505 and 605 and as described in line 21, page 68 through line 20, page 72 of the specification.

Claim 134 - The limitations associated with dependent claim 134 are described in a number of places including FIG. 6A, reference numbers 308 and 309 and line 24, page 49 through line 20, page 50 of the specification.

Claim 135 - The limitations associated with dependent claim 135 are described in FIG 6A, reference numbers 303, 304, 305 and 306 and line 30, page 44 through line 6, page 49 of the specification.

Claim 136- The limitations associated with dependent claim 128 are described in a number of places including FIG. 6B, reference numbers 325, 330 and 335 and line 25, page 38 through line 6, page 41 of the specification of cross referenced U.S. Patent Application 08/999,245.

Claim 137 - The limitations associated with dependent claim 137 are described in a number of places including FIG. 6A, reference numbers 305 and 306, and line 3, page 46, through line 8, page 46 of the specification.

Claim 138 - The limitations associated with dependent claim 138 are described in a number of places including FIG. 6A, reference numbers 308 and 309 and line 30, page 48 through line 32, page 48 of the specification.

Claim 139 - The limitations associated with dependent claim 139 are described in a number of places including FIG. 6C reference numbers 347 and 348 and line 17, page 57 through line 15, page 58.

Independent Claim 140 - A third embodiment of the system for identifying, measuring and enhancing categories of value for a value chain is exemplified in independent claim 140 where an article of manufacture instructs a computer system to analyze data using a plurality of models, select a set of variables from the analyzed data using stepwise regression, refine the variable selection using an induction stage before using the best set of variables from the induction stage to develop a final model. Support for the specific steps contained in the claim can be found in the specification and drawings as detailed below:

The computer system is described in FIG. 3, reference numbers 100, 110, 111, 112, 113, 114, 115, 116, 117, 118, 120, 121, 122, 123, 124, 125, 126, 127, 128, 130, 131, 132, 133, 134, 135, 136, 137 and 138 and line 16, page 15 through line 4, page 17 of the specification.

a) receiving first input data into a plurality of initial predictive models to develop an initial model configuration by selecting an input data set from the plurality of predictive models using a stepwise regression algorithm after a training of each predictive model type is completed - is described in FIG 6A, reference numbers 303, 304, 305 and 306 and line 30, page 44 through line 6, page 49 of the specification;

b) receiving the input data set from said initial model configuration and a second input data as inputs into a second, induction model stage to develop an improvement to said initial model configuration as an output, said second input data comprising one of said first input data, data not included in said first input data, and a combination thereof - is described in FIG. 6A, reference numbers 308, 309 and 310, FIG. 6C reference number 321 and line 24, page 49 through line 8, page 51 of the specification;

c) receiving said second model stage output as an input into a third predictive model stage to develop and output a final predictive model – is described in FIG. 6C reference numbers 347 and 348 and line 17, page 57 through line 15, page 58.

Claim 141 - The limitations associated with dependent claim 141 are described in a number of places including FIG. 6A, reference numbers 308 and 309 and line 24, page 49 through line 20, page 50 of the specification.

Claim 142 - The limitations associated with dependent claim 142 are described in FIG 6A, reference numbers 303, 304, 305 and 306 and line 30, page 44 through line 6, page 49 of the specification.

Claim 143 - The limitations associated with dependent claim 128 are described in a number of places including FIG. 6B, reference numbers 325, 330 and 335 and line 25, page 38 through line 6, page 41 of the specification of cross referenced U.S. Patent Application 08/999,245.

Claim 144 - The limitations associated with dependent claim 144 are described in a number of places including FIG. 6A, reference numbers 305 and 306, and line 3, page 46, through line 8, page 46 of the specification.

Claim 145 - The limitations associated with dependent claim 145 are described in a number of places including FIG. 6A, reference numbers 308 and 309 and line 30, page 48 through line 32, page 48 of the specification.

Claim 146 - The limitations associated with dependent claim 139 are described in a number of places including FIG. 6C reference numbers 347 and 348 and line 17, page 57 through line 15, page 58.

Claim 147 - The limitations associated with dependent claim 147 are described in a number of places including line 33, page 19 through line 22, page 20 of the specification.

Claim 148 - A fourth embodiment of the system for identifying, measuring and enhancing categories of value for a value chain is exemplified in claim 148 where the article of manufacture of claim 140 instructs the machine of claim 133 to complete the method of claim 125 which comprises instructing a computer system to analyze data using a plurality of models, select a set of variables from the analyzed data using stepwise regression, refine the variable selection using an induction stage before using the best set of variables from the induction stage to develop a final model. Support for the specific steps contained in the claim can be found in the specification and drawings as detailed above under the discussion of claim 125, claim 133 and claim 140.

Claim 149 - The limitations associated with dependent claim 149 are described in a number of places including FIG. 6A, reference numbers 308 and 309 and line 24, page 49 through line 20, page 50 of the specification.

Claim 150 - The limitations associated with dependent claim 150 are described in a number of places including FIG. 6A, reference numbers 308 and 309 and line 30, page 48 through line 32, page 48 of the specification.

6. Grounds of rejection to be reviewed on appeal

Issue 1 - Whether claim 125, claim 126, claim 127, claim 128, claim 129, claim 130, claim 131, and claim 132 are obvious under 35 U.S.C. 103(a) given U.S. Patent 5,812,988 (hereinafter, Sandretto) in view of U.S. Patent 5,361,201 (hereinafter, Jost)?

Issue 2 - Whether claim 133, claim 134, claim 135, claim 136, claim 137, claim 138 and claim 139 are obvious under 35 U.S.C. 103(a) given Sandretto in view of Jost?

Issue 3 – Whether claim 140, claim 141, claim 142, claim 143, claim 144, claim 145, claim 146, claim 147, claim 148, claim 149 and claim 150 are obvious under 35 U.S.C. 103(a) given U.S. Sandretto in view of Jost?

Issue 4 - Whether claim 125, claim 126, claim 127, claim 128, claim 129, claim 130, claim 131, and/or claim 132 have utility and represent patentable subject matter under 35 U.S.C. 101?

Issue 5 - Whether claim 133, claim 134, claim 135, claim 136, claim 137, claim 138 and claim

139 have utility under 35 U.S.C. 101?

Issue 6 - Whether claim 140, claim 141, claim 142, claim 143, claim 144, claim 145, claim 146 and claim 147 have utility under 35 U.S.C. 101?

Issue 7 - Whether claim 148, claim 149 and claim 150 have utility under 35 U.S.C. 101?

Issue 8 - Whether claim 125, claim 126, claim 127, claim 128, claim 129, claim 130, claim 131, and claim 132 are enabled under 35 U.S.C. 112, first paragraph?

Issue 9 – Whether claim 133, claim 134, claim 135, claim 136, claim 137, claim 138, claim 139, claim 140, claim 141, claim 142, claim 143, claim 144, claim 145, claim 146, claim 147, claim 148, claim 149 and claim 150 are enabled under 35 U.S.C. 112, first paragraph?

Issue 10 – Whether claim 148, claim 149 and claim 150 are enabled under 35 U.S.C. 112, first paragraph?

Issue 11 - Whether claim 125, claim 126, claim 127, claim 128, claim 129, claim 130, claim 131 and claim 132 are indefinite under 35 U.S.C. 112, second paragraph?

Issue 12 - Whether claim 133, claim 134, claim 135, claim 136, claim 137, claim 138, claim 139 claim 140, claim 141, claim 142, claim 143, claim 144, claim 145, claim 146 and claim 147 are indefinite under 35 U.S.C. 112, second paragraph?

Issue 13 – Whether claim 148, claim 149 and claim 150 are indefinite under 35 U.S.C. 112, second paragraph?

Issue 14 – Informalities not identified by the Examiner.

7. The Argument

Grouping of Claims

For each ground of rejection which Appellant contests herein which applies to more than one claim, such additional claims, to the extent separately identified and argued below, do not stand and fall together.

Issue 1 - Whether claim 125, claim 126, claim 127, claim 128, claim 129, claim 130, claim 131 and claim 132 are patentable under 35 U.S.C. 103(a) given U.S. Patent 5,812,988 (hereinafter, Sandretto) in view of U.S. Patent 5,361,201 (hereinafter, Jost)?

The claims are patentable because the claim rejections are based on hundreds of errors in the facts and in the law. Because of these errors, the cited combination of teachings (Sandretto and Jost) and the arguments related to the cited combination of teachings fail to establish a prima facie case of obviousness for every rejected claim as detailed below.

Errors 1 through 10 – It is well established that: *"in determining the difference between the prior*

art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious but whether the claimed invention as a whole would have been obvious." Furthermore, it is well established that: *A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).* Errors in the claim rejections caused by the apparent failure to acknowledge the fact that the cited references teach away from the invention described in claim 125, claim 126, claim 127, claim 128, claim 129, claim 130, claim 131 and claim 132 include:

Error #1) Is a failure to acknowledge the fact that Sandretto teaches away from the claimed method for developing a regression model. Sandretto teaches away from every aspect of the claimed invention. The claimed model development method comprises a multi-stage method that identifies a data set and a configuration that should be used in a final predictive model that supports regression analysis. By way of contrast Sandretto teaches that regression models are developed using known data sets (stock returns and market returns) and known configurations (regress stock returns against market returns using ordinary least squares) in order to model an assumed relationship between risk and return (see Sandretto, Column 5, Line 9 through Line 12). It should be noted that the assumed relationship does not actually exist. By exclusively teaching methods that teach away from the claimed invention, Sandretto provides additional evidence of the novelty, non-obviousness and newness of claim 125, claim 126, claim 127, claim 128, claim 129, claim 130, claim 131 and claim 132.

Error #2) Is a failure to acknowledge the fact that Sandretto teaches away from the claimed need to develop a predictive model. Sandretto teaches away from every aspect of the claimed invention. Claim 125 teaches that data need to be analyzed in order to develop a predictive model for a physical object or substance. Sandretto teaches away by teaching that pre-determined regression analyses can be used to analyze risk (see Error #1) and that predetermined discounting models can be used to model any efficiently priced asset.

> *In Step 70 net present values (NPVs) for each of the assets are determined, preferably by reference to one of several predetermined discounting models in Step 80. The discounting models in Step 80 specify if and how cash flows are to be adjusted for inflation, the risk-return type asset pricing model to be used for discounting, and how the discount rate is determined from the risk-return type asset pricing model and from economic variables including an initial estimate of the risk measure for each asset (Sandretto, Column 17, Line 43 through 51).*

By exclusively teaching methods that teach away from the claimed invention, Sandretto provides additional evidence of the novelty, non-obviousness and newness of claim 125, claim 126, claim 127, claim 128, claim 129, claim 130, claim 131 and claim 132.

Error #3) Is a failure to acknowledge the fact that Sandretto teaches away from the claimed method for identifying a set of data. Sandretto teaches away from every aspect of the claimed invention. The claimed model development comprises a multi-stage model development method that identifies a data set and a configuration that should be used in a final predictive model. The claimed method does not utilize the adjustment of a single input variable. Sandretto teaches away by teaching a method that explicitly relies on an assumption that the data set that should be analyzed and the relationship between said data set and the model output (i.e. the configuration) are known. Because the data set and configuration are known, Sandretto completely relies on the iteration of a single input variable to back-fit the value of items in a portfolio to match a total portfolio value (see Sandretto, Column 3, Line 21 through Line 25). By exclusively teaching methods that teach away from the claimed invention, Sandretto provides additional evidence of the novelty, non-obviousness and newness of claim 125, claim 126, claim 127, claim 128, claim 129, claim 130, claim 131 and claim 132.

Error #4) Is a failure to acknowledge the fact that Jost teaches away from the claimed method of predictive model development. Jost teaches away from every aspect of the claimed invention. The claimed model development method relies on using a plurality of different types of predictive models. By way of contrast, Jost teaches a method that exclusively relies on a single type of predictive model (see Jost, Column 6, Line 3 through Line 23). By exclusively teaching methods that teach away from the claimed invention, Jost provides additional evidence of the novelty, non-obviousness and newness of claim 125, claim 126, claim 127, claim 128, claim 129, claim 130, claim 131 and claim 132.

Error #5) Is a failure to acknowledge the fact that Jost teaches away from the claimed method of using three stages to develop a predictive model. Jost teaches away from every aspect of the claimed invention. Jost teaches away the three stage model development process by teaching the use of a single stage to develop a predictive model (see Jost, Column 7, Line 21 through Line 45). By exclusively teaching methods that teach away from the claimed invention, Jost provides additional evidence of the novelty, non-obviousness and newness of claim 125, claim 126, claim 127, claim 128, claim 129, claim 130, claim 131 and claim 132.

Error #6) Is a failure to acknowledge the fact that Jost teaches away from the claimed method of using induction models to develop a predictive model. Jost teaches away from every aspect

of the claimed invention. Jost teaches away from the use of induction models by teaching an exclusive reliance on neural network model training (see Jost, Column 7, Line 21 through Line 45). By exclusively teaching methods that teach away from the claimed invention, Jost provides additional evidence of the novelty, non-obviousness and newness of claim 125, claim 126, claim 127, claim 128, claim 129, claim 130, claim 131 and claim 132.

Error #7) Is a failure to acknowledge the fact that Jost teaches away from the claimed predictive model scope. Jost teaches away from every aspect of the claimed invention. The claimed model development method develops a model by analyzing a set of data regarding a single physical object or substance. Jost teaches away by teaching a model development method that requires the use of weights developed from analyzing a plurality of objects (i.e. houses) in a specific geographic area (i.e. block, zip code, etc., see Jost, Column 7, Line 46 through Column 8, Line 39). By exclusively teaching methods that teach away from the claimed invention, Jost provides additional evidence of the novelty, non-obviousness and newness of claim 125, claim 126, claim 127, claim 128, claim 129, claim 130, claim 131 and claim 132.

Error #8) Is a failure to acknowledge the fact that Sandretto teaches away from the claimed method of using data that has been transformed into summaries by induction. Sandretto teaches away from every aspect of the claimed invention. The claimed model development method relies on data inputs that comprise data representative of physical objects that have been transformed into summaries using induction algorithms. These summaries also have utility in business forecasting, keyword relevance determination and performance management. Sandretto teaches away by teaching the use of a process that only iterates the data input by a user and does not transform data into a summary for use in analysis (see Sandretto, Column 3, Line 21 through Line 37). By exclusively teaching methods that teach away from the claimed invention, Sandretto provides additional evidence of the novelty, non-obviousness and newness of claim claim 126.

Error #9) Is a failure to acknowledge the fact that Jost teaches away from the claimed method of using data that has been transformed into summaries by induction. Jost teaches away from every aspect of the claimed invention. The claimed model development method relies on data inputs that comprise data representative of a physical objects that have been transformed into summaries using induction algorithms. Jost teaches away by teaching a process that uses the data received as inputs without transforming data into a summary (see Jost, FIG. 8). Jost further teaches away by teaching that data for individual houses are aggregated by geographic

area. By exclusively teaching methods that teach away from the claimed invention, Jost provides additional evidence of the novelty, non-obviousness and newness of claim 126.

Error #10) Is a failure to acknowledge the fact that Jost teaches away from the claimed use of independent subpopulations. Jost teaches away from every aspect of the claimed invention. The claimed model development method relies on the analysis of models developed using different sub-populations. Jost teaches away by teaching a process that uses data for a single geographic area without utilizing any subpopulations. By exclusively teaching methods that teach away from the claimed invention, Jost provides additional evidence of the novelty, non-obviousness and newness of claim 128.

Errors 11 through 29 - It is well established that *"when determining whether a claim is obvious, an examiner must make 'a searching comparison of the claimed invention – including all its limitations – with the teaching of the prior art.' In re Ochiai, 71 F.3d 1565, 1572 (Fed. Cir. 1995). Thus, 'obviousness requires a suggestion of all limitations in a claim.' CFMT, Inc. v. Yieldup Intern. Corp., 349 F.3d 1333, 1342 (Fed. Cir. 2003) (citing In re Royka, 490 F.2d 981, 985 (CCPA 1974)) Furthermore, the Board of Patent Appeal and Interferences recently confirmed (In re Wada and Murphy, Appeal No. 2007- 3733) that a proper, post KSR obviousness determination still requires that an examiner must make "a searching comparison of the claimed invention – including all its limitations – with the teaching of the prior art." In re Ochiai, 71 F.3d 1565, 1572 (Fed. Cir. 1995) (emphasis added). In other words, obviousness still requires a suggestion of all the limitations in a claim.* Errors in the claim rejections caused by the apparent failure to acknowledge the fact that the cited documents (Jost and Sandretto) do not teach one or more limitations of the claimed invention include:

Errors #11 through #14) Is a failure to acknowledge the fact that the cited documents do not teach or suggest one or more limitations of claim 125 (affects claims 126, 127, 128, 129, 130, 131 and 132), including:

a) receiving first input data into a plurality of initial predictive models to develop an initial model configuration by selecting an input data set from the plurality of predictive models using a stepwise regression algorithm after a training of each predictive model type is completed (#11),

b) receiving the input data set from said initial model configuration and a second input data as inputs into a second, induction model stage to develop an improvement to said initial model configuration as an output, said second input data comprising one of said first input data, data not included in said first input data, and a combination thereof (#12);

c) receiving said second model stage output as an input into a third predictive model stage to develop and output a final predictive model (#13),

d) where all input data represents a physical object or substance (#14).

Error #15) Is a failure to acknowledge the fact that the cited documents do not teach or suggest one or more limitations of claim 126, including: *a second model stage that comprises an induction algorithm that receives a second input data and an input data set from the initial model configuration and transforms said inputs into a summary comprising a second stage model output.*

Error #16) Is a failure to acknowledge the fact that the cited documents do not teach or suggest one or more limitations of claim 127, including: *an input data set obtained from an initial model configuration that comprises the input data to said initial model configuration after training and model selection is complete.*

Error #17) Is a failure to acknowledge the fact that the cited documents do not teach or suggest one or more limitations of claim 128, including: *using a plurality of independent subpopulations to evolve a plurality of candidate predictive models with a plurality of genetic algorithms to identify a set of one or more changes that will optimize a predictive model output value for a single criteria or multiple criteria.*

Error #18) Is a failure to acknowledge the fact that the cited documents do not teach or suggest one or more limitations of claim 129, including: *wherein an initial predictive model is a CART model.*

Error #19) Is a failure to acknowledge the fact that the cited documents do not teach or suggest one or more limitations of claim 129, including: *wherein an initial predictive model is a generalized additive model (GAM).*

Error #20) Is a failure to acknowledge the fact that the cited documents do not teach or suggest one or more limitations of claim 129, including: *wherein an initial predictive model is a boosted Naïve Bayes Regression model.*

Error #21) Is a failure to acknowledge the fact that the cited documents do not teach or suggest one or more limitations of claim 129, including: *wherein an initial predictive model is a MARS model.*

Error #22) Is a failure to acknowledge the fact that the cited documents do not teach or suggest one or more limitations of claim 129, including: *wherein an initial predictive model is selected from the group consisting of a CART model; projection pursuit regression; generalized additive model (GAM), redundant regression network; boosted Naïve Bayes*

Regression; MARS; linear regression; and stepwise regression.

Error #23) Is a failure to acknowledge the fact that the cited documents do not teach or suggest one or more limitations of claim 130, including: *wherein an induction model is an entropy minimization model.*

Error #24) Is a failure to acknowledge the fact that the cited documents do not teach or suggest one or more limitations of claim 130, including: *wherein an induction model is a LaGrange model.*

Error #25) Is a failure to acknowledge the fact that the cited documents do not teach or suggest one or more limitations of claim 130, including: *wherein an induction model is a Bayesian model.*

Error #26) Is a failure to acknowledge the fact that the cited documents do not teach or suggest one or more limitations of claim 130, including: *wherein an induction model is a path analysis model.*

Error #27) Is a failure to acknowledge the fact that the cited documents do not teach or suggest one or more limitations of claim 130, including: *wherein an induction model is selected from the group consisting of entropy minimization, LaGrange, Bayesian and path analysis.*

Error #28) Is a failure to acknowledge the fact that the cited documents do not teach or suggest one or more limitations of claim 131, including: *wherein the use of a tournament to select a predictive model type eliminates a need for multiple processing stages.*

Error #29) Is a failure to acknowledge the fact that the cited documents do not teach or suggest one or more limitations of claim 132, including: *wherein the final predictive model comprises a transform predictive model.*

Errors 30 through 32 – It is well established that when "*the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious. In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)*". Errors in the claim rejections caused by the apparent failure to acknowledge the fact that changes in the principles of operation of Sandretto will be required to replicate the invention described in claim 125, claim 126, claim 127, claim 128, claim 129, claim 130, claim 131 and claim 132, include:.

Error #30) One principle of operation that Sandretto relies on is that the value of an output variable is a known function of one or more input variables (see Sandretto, abstract and Column 17, Line 5).

	Sandretto	10/743,417
Known parameter(s)	The relationship between input variables and output variables is known and pre-determined	The relationship between input variables and output variables is unknown and must be determined

This principle of operation would have to be changed to replicate the functionality of the claimed invention that teaches and relies on the principle that the relationship between input variables on output variables is unknown and must be discovered by modeling. Affects all claims.

Error #31) A second principle of operation that Sandretto relies on is the calculation of the actual value of each item (see Sandretto, Column 8, Lines 52 - 53). This principle of operation would have to be changed to replicate the functionality of the claimed invention that develops a statistical model without calculating a value of any items. Affects all claims.

Error #32) A third principle of operation that Sandretto relies on is the analysis of input variables (see Sandretto, Column 3, Line 21 through Line 37). This principle of operation would have to be changed to replicate the functionality of the claimed invention that analyzes summaries of input variables. Affects claim 126.

Because the required modifications of the Sandretto invention would change several of its principles of operation, the prima facie case of obviousness cannot be properly made.

Errors 33 through 36 – Errors in the claim rejections caused by the apparent failure to acknowledge the fact that changes in the principles of operation of Jost will be required to replicate the invention described in claim 125, claim 126, claim 127, claim 128, claim 129, claim 130, claim 131 and claim 132, include:

Error #33) One principle of operation that Jost relies on is the development and use of predictive models using a process that comprises repeatedly using a single stage development method instead of using the three stages process included in the claimed invention (see Error #5 for details). This principle of operation would have to be changed to replicate the functionality of the claimed invention and incorporate two additional stages. Affects all claims.

Error #34) A second principle of operation that Jost relies on is the development and use of predictive models for a specific time period. This principle of operation would have to be changed to support the proposed combination that requires the use of time series models. Affects all claims.

Error #35) A third principle of operation that Jost relies on is the use of relationships developed

from the analysis of a plurality of items (i.e. houses) in geographic area to develop a model. This principle of operation would have to be changed to support the claimed development of a model for a single physical object or substance. Affects all claims.

Error #36) A fourth, closely related principle of operation that Jost relies on is the analysis of input variables (see Jost, FIG. 8). This principle of operation would have to be changed to replicate the functionality of the claimed invention that analyzes summaries of input variables created by induction. Affects claim 128.

Because the required modifications of the Sandretto invention would change several of its principles of operation, the prima facie case of obviousness cannot be properly made.

Errors 37 and 38 – It is well established that *when a modification of a reference or a combination of references destroys the intent, purpose or function of an invention such a proposed modification is not proper and the prima facie cause of obviousness cannot be properly made (In re Gordon 733 F.2d 900, 221 U.S.PQ 1125 Fed Circuit 1984)*. Errors in the claim rejections caused by the apparent failure to acknowledge the fact that the proposed modification of Sandretto would destroy its ability to function include:

Error #37) The function of the Sandretto invention is estimate an asset's risk and NPV (Sandretto, Column 8, Lines 52 - 53) using forecast time series data. Completion of these estimates requires the use of models that complete several tasks, including: a) estimate the actual output of an item (aka asset) for a given set of inputs (i.e. economic conditions), and b) estimate the residual value for an item. Sandretto teaches the use of pre-defined models that complete both of these tasks (see Sandretto, abstract and Column 17, Line 5 through Line 45). The output from the first task is input to an iterative loop where a risk measure and discount rate are determined. Jost teaches the development of a statistical model that completes a task similar to task a) listed above for a specific time period. However, the Jost models do not complete an estimate of a residual and they do not determine actual values. The claimed invention comprises a method for transforming data into a predictive model that identifies the relationship between input variables and output values. Combining Sandretto with Jost to create a predictive model that could approximate the functionality of the claimed invention while trying to preserve the ability of the Sandretto invention to complete its intended function would require: a) changing Jost from a specific time period model to a time series model (see error #34), and b) using the modified Jost method to replace the pre-defined models incorporated in the Sandretto invention with a statistical, time series model in order to identify the relationship between input variables and output values.

After completing these changes the Sandretto invention would not have the ability to calculate asset NPV's for a number of reasons including the fact that the model would now have two unknowns (asset return and asset risk) instead of one and any solution would be indeterminate. Because the required changes would destroy the ability of the Sandretto invention to calculate actual asset NPV's, the required modification is not proper.

Error #38) Changing to a time series model as discussed under Error #37 would also destroy the ability of Jost to complete its intended function as would the change from a focus on a geographic area to a focus on a physical object or substance. (please note: if Jost were not changed to a time series model, then the modified Sandretto invention would not be able to complete the required time series analyses).

Because the required modifications would destroy the ability of Sandretto and Jost to complete their intended functions, the prima facie case of obviousness cannot be properly made.

Errors 39 through 41 – The claim rejections are based on 35 U.S.C. §103(a) which states: *A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title [35 USC 102], if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.* Errors in the claim rejections caused by the apparent failure to meet any of the statutory requirements for claim rejection include:

Error #39) Is a failure to acknowledge the fact that the cited documents fail to teach or suggest the subject matter as whole. As illustrated by the preceding discussion, the obviousness rejections appear to be based of a non-existent standard for obviousness "mentions some of the same words as another document" instead of "teaches or suggests the subject matter as a whole" as there is no aspect of the rejected claims that are taught or suggested by the cited documents. It is also well established that the *"Patent and Trademark Office (PTO) must consider all claim limitations when determining patentability of an invention over the prior art." In re Lowry, 32 F.3d 1579, 1582 (Fed. Cir. 1994).* As detailed under errors 1 through 38, it does not appear that any of the limitations were actually considered.

Error #40) Is a failure to acknowledge the fact that the claim rejections have been authored by an individual(s) who appears to lack the level of skill in the art required to author such rejections. It is well established that the *"hypothetical 'person having ordinary skill in the art' to which the claimed subject matter pertains would, of necessity have the capability of*

understanding the scientific and engineering principles applicable to the pertinent art" Ex parte Hiyamizu, 10 USPQ2d 1393, 1394 (Bd. Pat. App. & Inter. 1988). It is unlikely that anyone who understood the scientific and engineering principles applicable to the pertinent art would ever suggest Sandretto or Jost as a reference in support of an obviousness rejection for the claimed inventions for the reasons described previously under errors 1 through 39.

Teaching	10/743,417	Jost	Sandretto
Invention for analyzing	Single physical object or substance	Houses in a geographic area	Assets in a portfolio
Model type(s)	Predictive model	Neural network model	1) regression model for risk measure, and 2) discounting model for asset values
	Statistical	Statistical	Actual values
Time regime	Not specified	Time period	Time series
First model development stage	Select input variables using stepwise regression	Reduce an error measure by adjusting weights for different characteristics in a geographic area value model	None – model configurations are predetermined*
Second model development stage	Identify the best set of input variables using induction and cross validation	None	None
Third model development stage	Use the best set of variables in a plurality of models and select the lowest error model	None	None

* Invention reduces an error measure by iterating an input value in a predefined discount model. The initial input value is obtained from the risk measure regression model. The invention also supports the iteration of an input value in option pricing models.

The Table above summarizes the profound differences between the cited art and the claimed invention.

Error #41) Is a failure to acknowledge the fact that the claim rejections are based on apparent misrepresentations regarding the teachings of the cited document. The apparent misrepresentation may be a product of the fact that the Examiner does not appear to have the requisite level of skill in the relevant arts.

Error 42 – *The Supreme Court in KSR noted that the analysis supporting a rejection under 35*

U.S.C. 103 should be made explicit. The Court quoting In re Kahn 41 stated that "'[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness (KSR, 550 U.S. at I, 82 USPQ2d at 1396).'" In spite of this well known requirement, the Examiner has not provided the required explanation. In particular, the Examiner has not explained what would motivate someone of average skill in the art to destroy the functionality of the Sandretto and/or Jost invention and modify their principles of operation of as discussed under errors 30 through 38. This explanation is particularly important when one considers that Sandretto and Jost teach away from all claimed methods and/or fails to teach or suggest almost every claim limitation as discussed under error 1, error 2, error 3, error 4, error 5, error 6, error 7, error 8, error 9, error 10, error 11, error 12, error 13, error 14, error 15, error 16, error 17, error 18, error 19, error 20, error 21, error 22, error 23, error 24, error 25, error 26, error 27, error 28 and error 29. In place of an explanation with articulated reasoning and a rational underpinning the Examiner has reached a conclusion of obviousness on the basis of several dozen errors in the facts and the law. This includes errors in the law identified under error 39, error 40 and error 41. Because no rational underpinning has been provided to support the legal conclusion of obviousness, the prima facie case of obviousness cannot be properly established.

Errors 43 and 44 – In Dickinson v. Zurko, 119 S. Ct. 1816, 50 USPQ2d 1930 (1999), the Supreme Court held that the appropriate standard of review of U.S.P.T.O. findings are the standards set forth in the Administrative Procedure Act ("APA") at 5 U.S.C. 706 (1994). The APA provides two standards for review – an arbitrary and capricious standard and a substantial evidence standard. Errors in the claim rejections caused by the apparent failure to meet any of the requirements of the APA include:

Error #43) Is a failure to acknowledge the fact that the claim rejections fail under the substantial evidence standard. Error 1 through error 42 clearly show that the relevant Office Action fails to provide even a scintilla of evidence to support the obviousness rejections of all rejected claims and that as a result the rejections fail to meet the substantial evidence standard. Affects all claims.

Error #44) Is a failure to acknowledge the fact that the claim rejections fail under the arbitrary and capricious standard. The Appellant respectfully submits that the obviousness rejection of claim 125, claim 126, claim 127, claim 128, claim 129, claim 130, claim 131 and claim 132 also fails to pass the arbitrary and capricious test for a number of reasons including the fact that:

a) as detailed above, the references cited by the Examiner provide substantial evidence of novelty, non-obviousness and newness of the rejected claims (see errors 1 through 38);

b) there is no rational connection between the statutory requirements for an obviousness rejection, the agency fact findings and the rejection of the claims (see errors 39 through 41),

c) no rational underpinning has been provided to support the legal conclusion of obviousness (see error 42), and

d) prior agency fact-findings have shown that 35 U.S.C. 103 requirements for non-obviousness are apparently not always considered during the prosecution and allowance of large company patent applications (i.e. U.S. Patent 7,283,982). This apparently unequal application of the law comprises an apparent violation of 35 USC 3.

Because the claim rejections do not meet either standard of the APA, the prima facie case of obviousness cannot be properly established.

Summarizing the preceding discussion, the Examiner has based the claim rejections under this issue on forty four (44) errors in the facts and the law. When the 44 errors are multiplied by the number of claim rejections affected by each error, the total number of errors associated with the rejection of claims under Issue 1 is two hundred twenty six (226). The Appellant respectfully submits that because of these errors the Examiner has failed to produce the evidence required to satisfy the requirements of the APA and/or establish a prima facie case of obviousness for a single claim. These failures provide additional evidence that the claimed invention is new, novel and non-obvious.

Issue 2 - Whether claim 133, claim 134, claim 135, claim 136, claim 137, claim 138 and claim 139 are obvious under 35 U.S.C. 103(a) given Sandretto in view of Jost?

The claims are patentable because the claim rejections are based on a number of errors in the facts and in the law. Because of these errors, the cited combination of teachings (Sandretto and Jost) and the arguments related to the cited combination of teachings fail to establish a prima facie case of obviousness for every rejected claim as detailed below.

Errors 1 through 10 – Errors in the claim rejections caused by the apparent failure to acknowledge the fact that the cited references teach away from the invention described in claim 133, claim 134, claim 135, claim 136, claim 137, claim 138 and claim 139 include, error 1, error 2, error 3, error 4, error 5, error 6, error 7, error 8, error 9 and error 10 identified under Issue 1.

Errors 11 through 29 - Errors in the claim rejections caused by the apparent failure to acknowledge the fact that the cited documents (Jost and Sandretto) do not teach one or more limitations of the claimed invention include error 11, error 12, error 13, error 14, error 15, error 16,

error 17, error 18, error 19, error 20, error 21, error 22, error 23, error 24, error 25, error 26, error 27 and error 28 identified under Issue 1. Additional errors include:

Error #29) Is a failure to acknowledge the fact that the cited documents do not teach or suggest one or more limitations of claim 133 (affects claims 134, 135, 136, 137, 138 and 139), including: *a graphical user interface to allow a user to identify one or more data sources for said predictive modeling method, and to at least one of display, print, and save to one of a printer, a data file, and an application program using the output resulting from the final, third stage model (#29).*

Errors 30 through 32 – Errors in the claim rejections caused by the apparent failure to acknowledge the fact that changes in the principles of operation of Sandretto will be required to replicate the invention described in claim 133, claim 134, claim 135, claim 136, claim 137, claim 138 and claim 139 include error 30, error 31 and error 32 identified under Issue 1.

Errors 33 through 36 – Errors in the claim rejections caused by the apparent failure to acknowledge the fact that changes in the principles of operation of Jost will be required to replicate the invention described in claim 133, claim 134, claim 135, claim 136, claim 137, claim 138 and claim 139 include error 33, error 34, error 35 and error 36 identified under Issue 1.

Errors 37 and 38 – Errors in the claim rejections caused by the apparent failure to acknowledge the fact that the changes in Sandretto and/or Jost required to replicate the functionality of the invention described in claim 133, claim 134, claim 135, claim 136, claim 137, claim 138 and claim 139 will destroy the functionality of at least one of the inventions include error 37 and error 38 identified under Issue 1.

Errors 39 through 41 – Errors in the claim rejections caused by the apparent failure to meet any of the statutory requirements for claim rejection include error 39, error 40 and error 41 identified under Issue 1,

Error 42 – *The Supreme Court in KSR noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Court quoting In re Kahn 41 stated that "'[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness (KSR, 550 U.S. at I, 82 USPQ2d at 1396).'"* In spite of this well known requirement, the Examiner has not provided the required explanation. In particular, the Examiner has not explained what would motivate someone of average skill in the art to destroy the functionality of the Sandretto and/or Jost invention and modify their principles of operation of as discussed under

errors 30 through 38. This explanation is particularly important when one considers that Sandretto and Jost teach away from all claimed methods and/or fails to teach or suggest almost every claim limitation as discussed under error 1, error 2, error 3, error 4, error 5, error 6, error 7, error 8, error 9, error 10, error 11, error 12, error 13, error 14, error 15, error 16, error 17, error 18, error 19, error 20, error 21, error 22, error 23, error 24, error 25, error 26, error 27, error 28 and error 29. In place of an explanation with articulated reasoning and a rational underpinning the Examiner has reached a conclusion of obviousness on the basis of several dozen errors in the facts and the law. This includes errors in the law identified under error 39, error 40 and error 41. Because no rational underpinning has been provided to support the legal conclusion of obviousness, the prima facie case of obviousness cannot be properly established.

Errors 43 and 44 – In Dickinson v. Zurko, 119 S. Ct. 1816, 50 USPQ2d 1930 (1999), the Supreme Court held that the appropriate standard of review of U.S.P.T.O. findings are the standards set forth in the Administrative Procedure Act ("APA") at 5 U.S.C. 706 (1994). The APA provides two standards for review – an arbitrary and capricious standard and a substantial evidence standard. Errors in the claim rejections caused by the apparent failure to meet any of the requirements of the APA include:

Error #43) Is a failure to acknowledge the fact that the claim rejections fail under the substantial evidence standard. Errors 1 through 42 clearly show that the relevant Office Action fails to provide even a scintilla of evidence to support the obviousness rejections of all rejected claims and that as a result the rejections fail to meet the substantial evidence standard.

Error #44) Is a failure to acknowledge the fact that the claim rejections fail under the arbitrary and capricious standard. The Appellant respectfully submits that the obviousness rejection of claim 133, claim 134, claim 135, claim 136, claim 137, claim 138 and claim 139 also fails to pass the arbitrary and capricious test for a number of reasons including the fact that:

a) as detailed above, the references cited by the Examiner provide substantial evidence of novelty, non-obviousness and newness of the rejected claims (see errors 1 through 38);

b) there is no rational connection between the statutory requirements for an obviousness rejection, the agency fact findings and the rejection of the claims (see errors 39 through 41),

c) no rational underpinning has been provided to support the legal conclusion of obviousness (see error 42), and

d) prior agency fact-findings have shown that 35 U.S.C. 103 requirements for non-obviousness are apparently not always considered during the prosecution and allowance of large company patent applications (i.e. U.S. Patent 7,283,982). This apparently unequal

application of the law comprises an apparent violation of 35 USC 3.

Because the claim rejections do not meet either standard of the APA, the prima facie case of obviousness cannot be properly established.

Summarizing the preceding discussion, the Examiner has based the claim rejections under this issue on forty four (44) errors in the facts and the law. When the 44 errors are multiplied by the number of claim rejections affected by each error, the total number of errors associated with the rejection of claims under Issue 2 is two hundred six (206). The Appellant respectfully submits that because of these errors the Examiner has failed to produce the evidence required to satisfy the requirements of the APA and/or establish a prima facie case of obviousness for a single claim. These failures provide additional evidence that the claimed invention is new, novel and non-obvious.

Issue 3 – Whether claim 140, claim 141, claim 142, claim 143, claim 144, claim 145, claim 146, claim 147, claim 148, claim 149 and claim 150 are obvious under 35 U.S.C. 103(a) given U.S. Sandretto in view of Jost?

The claims are patentable because the claim rejections are based on hundreds of errors in the facts and in the law. Because of these errors, the cited combination of teachings (Sandretto and Jost) and the arguments related to the cited combination of teachings fail to establish a prima facie case of obviousness for every rejected claim as detailed below.

Errors 1 through 10 – Errors in the claim rejections caused by the apparent failure to acknowledge the fact that the cited references teach away from the invention described in claim 140, claim 141, claim 142, claim 143, claim 144, claim 145, claim 146, claim 147, claim 148, claim 149 and claim 150 include, error 1, error 2, error 3, error 4, error 5, error 6, error 7, error 8, error 9 and error 10 identified under Issue 1.

Errors 11 through 29 - Errors in the claim rejections caused by the apparent failure to acknowledge the fact that the cited documents (Jost and Sandretto) do not teach one or more limitations of the claimed invention include error 11, error 12, error 13, error 15, error 16, error 17, error 18, error 19, error 20, error 21, error 22, error 23, error 24, error 25, error 26, error 27 and error 28 identified under Issue 1. Additional errors include:

Error #28) Is a failure to acknowledge the fact that the cited documents do not teach or suggest one or more limitations of claim 147, including: *wherein the machine readable medium comprises a plurality of intelligent agents*.

Error #29) Is a failure to acknowledge the fact that the cited documents do not teach or

suggest one or more limitations of claim 148, including: a *computing infrastructure*.

Errors 30 through 32 – Errors in the claim rejections caused by the apparent failure to acknowledge the fact that changes in the principles of operation of Sandretto will be required to replicate the invention described in claim 140, claim 141, claim 142, claim 143, claim 144, claim 145, claim 146, claim 147, claim 148, claim 149 and claim 150 include error 30, error 31 and error 32 identified under Issue 1.

Errors 33 through 36 – Errors in the claim rejections caused by the apparent failure to acknowledge the fact that changes in the principles of operation of Jost will be required to replicate the invention described in claim 140, claim 141, claim 142, claim 143, claim 144, claim 145, claim 146, claim 147, claim 148, claim 149 and claim 150 include error 33, error 34, error 35 and error 36 identified under Issue 1.

Errors 37 and 38 – Errors in the claim rejections caused by the apparent failure to acknowledge the fact that the changes in Sandretto and/or Jost required to replicate the functionality of the invention described in claim 140, claim 141, claim 142, claim 143, claim 144, claim 145, claim 146, claim 147, claim 148, claim 149 and claim 150 will destroy the functionality of at least one of the inventions include error 37 and error 38 identified under Issue 1.

Errors 39, 40 and 41 – Errors in the claim rejections caused by the apparent failure to meet any of the statutory requirements for claim rejection include error 39, error 40 and error 41 identified under Issue 1.

Error 42 – *The Supreme Court in KSR noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Court quoting In re Kahn 41 stated that "'[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness (KSR, 550 U.S. at I, 82 USPQ2d at 1396).'"* In spite of this well known requirement, the Examiner has not provided the required explanation. In particular, the Examiner has not explained what would motivate someone of average skill in the art to destroy the functionality of the Sandretto and/or Jost invention and modify their principles of operation of as discussed under errors 30 through 38. This explanation is particularly important when one considers that Sandretto and Jost teach away from all claimed methods and/or fails to teach or suggest almost every claim limitation as discussed under error 1, error 2, error 3, error 4, error 5, error 6, error 7, error 8, error 9, error 10, error 11, error 12, error 13, error 14, error 15, error 16, error 17, error 18, error 19, error 20, error 21, error 22, error 23, error 24, error 25, error 26, error 27, error 28

and error 29. In place of an explanation with articulated reasoning and a rational underpinning the Examiner has reached a conclusion of obviousness on the basis of several dozen errors in the facts and the law. This includes errors in the law identified under error 39, error 40 and error 41. Because no rational underpinning has been provided to support the legal conclusion of obviousness, the prima facie case of obviousness cannot be properly established.

Errors 43 and 44 – In Dickinson v. Zurko, 119 S. Ct. 1816, 50 USPQ2d 1930 (1999), the Supreme Court held that the appropriate standard of review of U.S.P.T.O. findings are the standards set forth in the Administrative Procedure Act ("APA") at 5 U.S.C. 706 (1994). The APA provides two standards for review – an arbitrary and capricious standard and a substantial evidence standard. Errors in the claim rejections caused by the apparent failure to meet any of the requirements of the APA include:

Error #43) Is a failure to acknowledge the fact that the claim rejections fail under the substantial evidence standard. Errors 1 through 42 clearly show that the relevant Office Action fails to provide even a scintilla of evidence to support the obviousness rejections of all rejected claims and that as a result the rejections fail to meet the substantial evidence standard.

Error #44) Is a failure to acknowledge the fact that the claim rejections fail under the arbitrary and capricious standard. The Appellant respectfully submits that the obviousness rejection of claim 140, claim 141, claim 142, claim 143, claim 144, claim 145, claim 146, claim 147, claim 148, claim 149 and claim 150 also fails to pass the arbitrary and capricious test for a number of reasons including the fact that:

a) as detailed above, the references cited by the Examiner provide substantial evidence of novelty, non-obviousness and newness of the rejected claims (see errors 1 through 38);

b) there is no rational connection between the statutory requirements for an obviousness rejection, the agency fact findings and the rejection of the claims (see errors 39 through 41),

c) no rational underpinning has been provided to support the legal conclusion of obviousness (see error 42), and

d) prior agency fact-findings have shown that 35 U.S.C. 103 requirements for non-obviousness are apparently not always considered during the prosecution and allowance of large company patent applications (i.e. U.S. Patent 7,283,982). This apparently unequal application of the law comprises an apparent violation of 35 USC 3.

Because the claim rejections do not meet either standard of the APA, the prima facie case of obviousness cannot be properly established.

Summarizing the preceding discussion, the Examiner has based the claim rejections under this issue on forty four (44) errors in the facts and the law. When the 44 errors are multiplied by the number of claim rejections affected by each error, the total number of errors associated with the rejection of claims under Issue 3 is three hundred four (304). The Appellant respectfully submits that because of these errors the Examiner has failed to produce the evidence required to satisfy the requirements of the APA and/or establish a prima facie case of obviousness for a single claim. These failures provide additional evidence that the claimed invention is new, novel and non-obvious.

Issue 4 - Whether claim 125, claim 126, claim 127, claim 128, claim 129, claim 130, claim 131, and/or claim 132 have utility and represent patentable subject matter under 35 U.S.C. 101?

The claims are patentable because the claim rejections are based on a number of errors in the facts and in the law. Because of these errors, the arguments presented by the Examiner fail to establish a prima facie case of a lack of utility and/or non statutory subject matter for every rejected claim as detailed below.

Errors 1 and 2 - It is well established that *"an applicant's assertion of utility creates a presumption of utility that will generally be sufficient to satisfy the utility requirement of 35 U.S.C. 101. See, e.g., In re Jolles, 628 F.2d 1322, 206 USPQ 885 (CCPA 1980); In re Irons, 340 F.2d 974, 144 USPQ 351 (CCPA 1965); In re Langer, 503 F.2d 1380, 183 USPQ 288 (CCPA 1974); In re Sichert, 566 F.2d 1154, 1159, 196 USPQ 209, 212-13 (CCPA 1977)"*. It is also well established that *"the examiner has the initial burden of challenging an asserted utility. Only after the examiner has provided evidence showing that one of ordinary skill in the art would reasonably doubt the asserted utility does the burden shift to the applicant to provide rebuttal evidence sufficient to convince one of ordinary skill in the art of the invention's asserted utility. In re Brana, 51 F.3d 1560, 1566, 34 USPQ2d 1436, 1441 (Fed. Cir. 1995) (citing In re Bundy, 642 F.2d 430, 433, 209 USPQ 48, 51 (CCPA 1981))*. Errors in the claim rejections caused by the apparent failure to establish a prima facie case of a lack of utility include:

Error #1) The rejection of independent claims 125 is based on a conclusory statement that the invention described in the claim lacks utility. The remaining claims are rejected because they depend on the rejected independent claim. In rejecting the claim, the Examiner failed to explain why the transformation of data into a predictive model is not useful. The failure to provide an explanation for the asserted lack of utility supported by evidence leads to the inevitable conclusion that the Examiner has failed to establish a prima facie case that would support a §101 rejection of claim 125, claim 126, claim 127, claim 128, claim 129, claim 130,

claim 131, and/or claim 132.

Error #2 The rejection of independent claims 125 is based at least in part on a conclusory statement that the claimed invention is subjective. The remaining claims are rejected because they depend on the rejected independent claim. In rejecting the claim, the Examiner failed to explain why the transformation of data into a predictive model using the method detailed in the specification is subjective. The failure to provide an explanation for the asserted subjectivity supported by evidence leads to the inevitable conclusion that the Examiner has failed to establish a prima facie case that would support a §101 rejection of claim 125, claim 126, claim 127, claim 128, claim 129, claim 130, claim 131, and/or claim 132.

The prima facie case of a lack of utility has not been properly established. Recognizing this clear error in the grounds for rejection will reverse the non statutory subject matter rejection of claim 125, claim 126, claim 127, claim 128, claim 129, claim 130, claim 131, and/or claim 132.

Errors 3 and 4 – Additional errors in the claim rejections under this issue are the result of the fact that the claim rejections are based on conclusory statements that are demonstrably false. Errors in the claim rejections caused by a reliance on apparently false conclusory statements include:

Error #3 As discussed under Error #1 and Error #2, claim 125, claim 126, claim 127, claim 128, claim 129, claim 130, claim 131, and/or claim 132 are rejected for allegedly not having any utility. This conclusory statement is demonstrably false as the claimed invention transforms data into predictive models that have utility in analyzing, modeling and managing entities that physically exist (i.e. an organization and its elements of value). U.S. Patent 7,283,982 teaches that the models developed by the claimed invention would also have utility in determining the effect of air pollution on house values in Boston.

Error #4) As discussed under Error #1 and Error #2, claim 125, claim 126, claim 127, claim 128, claim 129, claim 130, claim 131, and/or claim 132 are rejected for allegedly being subjective. As discussed in prior Office Actions, as detailed in the specification and as outlined in the Summary of Claimed Subject Matter the claimed method relies on data initially selected by a stepwise regression algorithm, the selected data are refined by induction algorithms and the data selected by these algorithms are used to build a final model. The statement that the claimed process is subjective is another indication that the individuals who authored and/or approved the relevant Office Action do not appear to understand the scientific and engineering principles associated with the pertinent arts. This error is discussed in more detail in the discussion under Issue 8.

The claim rejections are improper because they are based on conclusory statements that are

incorrect. Recognizing this clear error in the grounds for rejection will reverse the non statutory subject matter rejection of claim 125, claim 126, claim 127, claim 128, claim 129, claim 130, claim 131, and/or claim 132.

Errors 5 through 7 – The claim rejections are based on 35 U.S.C. §101 which states: *Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title.* The *"Supreme Court noted that one example of a statutory "process" is where the process steps provide a transformation or reduction of an article to a different state or thing (Diehr, 450 U.S. at 183, 209 USPQ at 6).* In Alappat, the Court held that *"data, transformed by a machine" "to produce a smooth waveform display" "constituted a practical application of an abstract idea." State Street, 149 F.3d at 1373.* In Arrhythmia, the Court held *"the transformation of electrocardiograph signals" "by a machine" "constituted a practical application of an abstract idea." Id.* Thus, while Diehr involved the transformation of a tangible object – curing synthetic rubber – the Court also regards the transformation of intangible subject matter to similarly be eligible, so long as data represent some real world activity. In re Bilski, 545 F.3d 943, 88 U.S.P.Q.2d 1385 (2008) generally follows these prior decisions and states that the data transformed by a process must represent an object or substance that physically exists. Errors in the claim rejections caused by the apparent failure to meet any of the statutory requirements for claim rejection include:

Error #5) Is a failure to acknowledge that the rejected claim meets the statutory requirements for patentability. In particular, the rejected independent claim describes a process that uses a computer to transform data representing a physical object or substance into a predictive model. The predictive model has utility in analyzing, modeling and managing entities that physically exist (i.e. an organization and its elements of value). This error affects all claims.

Error #6) The application specification asserts that the claimed process produces models that have utility in analyzing, modeling and managing entities that physically exist (i.e. an organization and its elements of value). There is no statutory basis for giving any weight to a conclusory statement that the claimed invention lacks utility. Affects all claims.

Error #7) Failure to acknowledge the fact that the claim rejections are based on apparent misrepresentations regarding the teachings of the instant application. These apparent misrepresentations may be a product of the fact that the Examiner does not appear to have a level of skill in the relevant arts that is average or better. Affects all claims.

Errors 8 and 9 – In Dickinson v. Zurko, 119 S. Ct. 1816, 50 USPQ2d 1930 (1999), the Supreme

Court held that the appropriate standard of review of U.S.P.T.O. findings are the standards set forth in the Administrative Procedure Act ("APA") at 5 U.S.C. 706 (1994). The APA provides two standards for review – an arbitrary and capricious standard and a substantial evidence standard. Errors in the claim rejections caused by the apparent failure to meet any of the requirements of the APA include:

Error #8) Failure to acknowledge the fact that the claim rejections fail under the substantial evidence standard. Errors 1 through 7 clearly show that the relevant Office Action fails to provide even a scintilla of evidence to support the non statutory subject matter rejection of claim 125, claim 126, claim 127, claim 128, claim 129, claim 130, claim 131, and/or claim 132, and that as a result the claim rejections fail to meet the substantial evidence standard.

Error #9) Failure to acknowledge the fact that the claim rejections fail under the arbitrary and capricious standard. The Appellant respectfully submits that the non statutory subject matter rejection of claim 125, claim 126, claim 127, claim 128, claim 129, claim 130, claim 131, and/or claim 132 also fails to pass the arbitrary and capricious test for a number of reasons including the fact that:

a) no rational underpinning has been provided to support the conclusion of a lack of utility and non statutory subject matter (see errors 1 through 4),

b) there is no rational connection between the statutory requirements for establishing statutory utility and/or patent eligible subject matter, the agency fact findings, and the claim rejections (see errors 5 through 7),

c) there is no rational connection between the claim rejections under this Issue and prior agency fact findings regarding U.S. Patent 7,283,982 (hereinafter, Pednault), and

Summary of ARI 10/743,417	Summary of Pednault
1) select variables using stepwise regression; 2) summarize the variables using induction and pick the best set of summaries (using cross validation); and 3) use the best set of summaries in a plurality of models and selects the best model	1) select variables using stepwise regression; 2) summarize the variables and pick the best set of summaries using holdout or cross validation; and 3) use the best set of summaries in a model.

d) prior agency fact-findings have shown that 35 U.S.C. 101 requirements for statutory subject matter are apparently not always applied during the prosecution and allowance of large company patent applications (i.e. Tulskie). This apparently unequal application of the law comprises an arbitrary and capricious violation of 35 USC 3.

Because the claim rejections do not meet either standard of the APA, the prima facie case of non statutory subject matter and/or a lack of utility can not be properly established.

As detailed above, the Examiner has based the claim rejections under this issue on nine errors in the facts and the law. When the nine errors are multiplied by the number of claim rejections affected by each error, the total number of errors associated with the rejection of claims under Issue 4 is seventy two (72). Because of these errors, the claim rejections do not meet either standard of the APA and the prima facie case of a lack of utility cannot be properly established.

Issue 5 - Whether claim 133, claim 134, claim 135, claim 136, claim 137, claim 138 and claim 139 have utility under 35 U.S.C. 101?

The claims are patentable because the claim rejections are based on a number of errors in the facts and in the law. Because of these errors, the arguments presented by the Examiner fail to establish a prima facie case of a lack of utility and/or non statutory subject matter for every rejected claim as detailed below.

Errors 1 and 2 - Errors in the claim rejections caused by the apparent failure to establish a prima facie case of a lack of utility include error 1 and error 2 identified under Issue 4 where claim 133 is the independent claim that is arbitrarily and capriciously rejected.

Errors 3 and 4 – Errors in the claim rejections caused by a reliance on apparently false conclusory statements include error 3 and error 4 identified under Issue 4.

Errors 5 through 7 – The claim rejections are based on 35 U.S.C. §101 which states: *Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title.* Errors in the claim rejections caused by the apparent failure to meet any of the statutory requirements for claim rejection include:

Error #5) Is a failure to acknowledge that the rejected claim meets the statutory requirements for patentability. In particular, the rejected independent claims describes a machine that transforms data into a predictive model. The predictive model has utility in analyzing, modeling and managing entities that physically exist (i.e. an organization and its elements of value). This error affects all claims.

Error #6) The application specification asserts that the claimed machine produces models that have utility in analyzing, modeling and managing entities that physically exist (i.e. an organization and its elements of value). There is no statutory basis for giving any weight to a conclusory statement that the claimed invention lacks utility. Affects all claims.

Error #7) Is a failure to acknowledge the fact that the claim rejections are based on apparent misrepresentations regarding the teachings of the instant application. These apparent

misrepresentations may be a product of the fact that the Examiner does not appear to have a level of skill in the relevant arts that is average or better. Affects all claims.

Errors 8 and 9 – Errors in the claim rejections caused by the apparent failure to meet any of the requirements of the APA include error 8 and error 9 identified under Issue 4. Because the claim rejections do not meet either standard of the APA, the prima facie case of non statutory subject matter and/or a lack of utility can not be properly established.

As detailed above, the Examiner has based the claim rejections under this issue on nine errors in the facts and the law. When the nine errors are multiplied by the number of claim rejections affected by each error, the total number of errors associated with the rejection of claims under Issue 5 is sixty three (63). Because of these errors, the claim rejections do not meet either standard of the APA and the prima facie case of a lack of utility cannot be properly established.

Issue 6 - Whether claim 140, claim 141, claim 142, claim 143, claim 144, claim 145, claim 146 and claim 147 have utility under 35 U.S.C. 101?

The claims are patentable because the claim rejections are based on a number of errors in the facts and in the law. Because of these errors, the arguments presented by the Examiner fail to establish a prima facie case of a lack of utility and/or non statutory subject matter for every rejected claim as detailed below.

Errors 1 and 2 - Errors in the claim rejections caused by the apparent failure to establish a prima facie case of a lack of utility include error 1 and error 2 identified under Issue 4 where claim 140 is the independent claim that is arbitrarily and capriciously rejected.

Errors 3 and 4 – Errors in the claim rejections caused by a reliance on apparently false conclusory statements include error 3 and error 4 identified under Issue 4.

Errors 5 through 7 – The claim rejections are based on 35 U.S.C. §101 which states: *Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title.* Errors in the claim rejections caused by the apparent failure to meet any of the statutory requirements for claim rejection include:

Error #5) Is a failure to acknowledge that the rejected claim meets the statutory requirements for patentability. In particular, the rejected independent claims describes an article of manufacture that instructs a computer to transform data into a predictive model. The predictive model has utility in analyzing, modeling and managing entities that physically exist (i.e. an organization and its elements of value). This error affects all claims.

Error #6) The application specification asserts that the claimed article of manufacture produces models that have utility in analyzing, modeling and managing entities that physically exist (i.e. an organization and its elements of value). There is no statutory basis for giving any weight to a conclusory statement that the claimed invention lacks utility. Affects all claims.

Error #7) Is a failure to acknowledge the fact that the claim rejections are based on apparent misrepresentations regarding the teachings of the instant application. These apparent misrepresentations may be a product of the fact that the Examiner does not appear to have a level of skill in the relevant arts that is average or better. Affects all claims.

Errors 8 and 9 – Errors in the claim rejections caused by the apparent failure to meet any of the requirements of the APA include error 8 and error 9 identified under Issue 4. Because the claim rejections do not meet either standard of the APA, the prima facie case of non statutory subject matter and/or a lack of utility can not be properly established.

As detailed above, the Examiner has based the claim rejections under this issue on nine errors in the facts and the law. When the nine errors are multiplied by the number of claim rejections affected by each error, the total number of errors associated with the rejection of claims under Issue 6 is seventy two (63). Because of these errors, the claim rejections do not meet either standard of the APA and the prima facie case of a lack of utility cannot be properly established.

Issue 7 - Whether claim 148, claim 149 and claim 150 represent have utility 35 U.S.C. 101?

The claims are patentable because the claim rejections are based on a number of errors in the facts and in the law. Because of these errors, the arguments presented by the Examiner fail to establish a prima facie case of a lack of utility and/or non statutory subject matter for every rejected claim as detailed below.

Errors 1 and 2 - Errors in the claim rejections caused by the apparent failure to establish a prima facie case of a lack of utility include error 1 and error 2 identified under Issue 4.

Errors 3 and 4 – Errors in the claim rejections caused by a reliance on apparently false conclusory statements include error 3 and error 4 identified under Issue 4.

Errors 5 through 7 – The claim rejections are based on 35 U.S.C. §101 which states: *Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title.* Errors in the claim rejections caused by the apparent failure to meet any of the statutory requirements for claim rejection include:

Error #5) Is a failure to acknowledge that the rejected claim meets the statutory requirements

for patentability. In particular, the rejected independent claims describes an article of manufacture that instructs a computer to transform data into a predictive model. The predictive model has utility in analyzing, modeling and managing entities that physically exist (i.e. an organization and its elements of value). This error affects all claims.

Error #6) The application specification asserts that the claimed article of manufacture produces models that have utility in analyzing, modeling and managing entities that physically exist (i.e. an organization and its elements of value). There is no statutory basis for giving any weight to a conclusory statement that the claimed invention lacks utility. Affects all claims.

Error #7) Failure to acknowledge the fact that the claim rejections are based on apparent misrepresentations regarding the teachings of the instant application. These apparent misrepresentations may be a product of the fact that the Examiner does not appear to have a level of skill in the relevant arts that is average or better. Affects all claims.

Errors 8 and 9 – Errors in the claim rejections caused by the apparent failure to meet any of the requirements of the APA include error 8 and error 9 identified under Issue 4. Because the claim rejections do not meet either standard of the APA, the prima facie case of non statutory subject matter and/or a lack of utility can not be properly established.

As detailed above, the Examiner has based the claim rejections under this issue on nine errors in the facts and the law. When the nine errors are multiplied by the number of claim rejections affected by each error, the total number of errors associated with the rejection of claims under Issue 7 is twenty seven (27). Because of these errors, the claim rejections do not meet either standard of the APA and the prima facie case of a lack of utility cannot be properly established.

Issue 8 - Whether claim 125, claim 126, claim 127, claim 128, claim 129, claim 130, claim 131 and claim 132 are enabled under 35 U.S.C. 112, first paragraph?

The claims are patentable because the claim rejections are based on a number of errors in the facts and in the law. Because of these errors, the arguments presented by the Examiner fail to establish a prima facie case of a lack of enablement for every rejected claim as detailed below.

Errors 1 through 5 - It is well established that *"a description as filed is presumed to be adequate; unless or until sufficient evidence or reasoning to the contrary has been presented by the examiner to rebut the presumption. See, e.g., In re Marzocchi, 439 F.2d 220, 224, 169 USPQ 367, 370 (CCPA 1971). The examiner, therefore, must have a reasonable basis to challenge the adequacy of the written description. The examiner has the initial burden of presenting by a preponderance of evidence why a person skilled in the art would not recognize in an applicant's*

disclosure a description of the invention defined by the claims. Wertheim, 541 F.2d at 263, 191 USPQ at 97. In rejecting a claim, the examiner must set forth express findings of fact regarding the above analysis which support the lack of written description conclusion. These findings should: (A) Identify the claim limitation at issue; and (B) Establish a prima facie case by providing reasons why a person skilled in the art at the time the application was filed would not have recognized that the inventor was in possession of the invention as claimed in view of the disclosure of the application as filed. A general allegation of "unpredictability in the art" is not a sufficient reason to support a rejection for lack of adequate written description." Furthermore, *it is well established that "the test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experimentation." United States v. Telectronics, Inc., 857 F.2d 778, 785, 8 USPQ2d 1217, 1223 (Fed. Cir. 1988).* This has been the primary test of enablement since 1916 (see Mineral Separation v. Hyde, 242 U.S. 261, 270 (1916)). *The determination that "undue experimentation" would have been needed to make and use the claimed invention is not a single, simple factual determination (In re Wands, 858 F.2d 731, 8 USPQ2d 1400 (Fed. Cir. 1988)). Factors which need to be considered include: the nature of the invention, the state of the prior art, the predictability or lack thereof in the art, the amount of direction or guidance present, the presence or absence of working examples, the breadth of the claims, the relative skill of those in the art and the quantity of experimentation needed* (hereinafter referred to as the Wands factors). *A conclusion of lack of enablement means that, based on the evidence regarding each of the above factors (the Wands factors), the specification, at the time the application was filed, would not have taught one skilled in the art how to make and/or use the full scope of the claimed invention without undue experimentation (In re Wright, 999 F.2d 1557,1562, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993)).* Errors in the claim rejections caused by the apparent failure to establish a prima facie case of a lack of enablement include:

Error #1) – Is a failure to acknowledge that no evidence has been presented to support the rejection of any claims for a lack of enablement. As noted above, rejection under §112 first paragraph requires a preponderance of evidence and express findings of fact. In spite of this well known requirement, no facts have been identified and no evidence has been presented that excessive experimentation would be required and/or that the full scope of the claimed invention has not been described. In place of the required evidence, the Examiner has made conclusory statements that the description in the specification requires subjective judgments to be implemented. However, the subjective judgments that allegedly need to be made and/or that affect the final results have not been identified. Affects all claims.

Error #2) Is a failure to acknowledge that the conclusory statement about the subjectivity of the model development process is demonstrably false. The specification describes a process for developing a predictive model that does not require reliance on any subjective judgments. It is well established that *"the enablement requirement is met if the description enables any mode of making and using the claimed invention" (see Invitrogen Corp. v. Clontech Labs, Inc., 429 F.3d 1052, 1058 (Fed. Cir. 2005) where the Court referenced Engel Industries, Inc. v. Lockformer Co. 946 F.2d 1528 (Fed. Cir. 1991).* Affects all claims.

Error #3) - Is a failure to acknowledge that the Wands factors have not been considered. It is well established that rejection under §112 first paragraph requires a consideration of the Wands factors. In spite of this well known requirement, the Examiner has not completed a single aspect of the required Wands factor analysis. Affects all claims.

Error #4) - Is a failure to acknowledge that no claim limitation(s) at issue have been identified. The Examiner has expressed vague concerns regarding alleged subjectivity in the specification but no specific claim limitations have been identified as being at issue. Affects all claims.

Error #5) Is a failure to acknowledge the evidence that has been presented. Evidence that the Examiner has apparently ignored includes: a) the summary of claimed subject matter; b) the fact that a large company was apparently able to copy several of the steps included in the specification – something that wouldn't have been possible if the specification was not enabling (see Pednault), and. c) the declarations submitted in support of this application, the declaration represents the only known independent review of the patent specification by someone with average skill in the relevant arts under either the pre or post KSR standards for determining the possession of said level of skill. Although the expert providing the declaration has considerable expertise in the development of models of real world entities, the Examiner has apparently chosen to ignore the contents of this declaration which states *"Specifically, U.S. Patent Application 10/746,673 together with the patent applications and patents it cross-references fully describes a performance model that quantifies and impact of a plurality of elements and sub-elements of value on a value of a business by category of value where the categories of value are selected from the group consisting of current operation, real option, market sentiment and combinations thereof* (see pages 55 through 57, Evidence Appendix). Application 09/940,450, the parent of the instant, continuation application, is the cross referenced application that contained the complete description of the performance model. The performance model comprises a predictive model that is developed using the modeling

method claimed in the instant application. Affects all claims.

Since the prima facie case to support the claim rejections has not been established, no rebuttal was (or is) required.

Error 6 - Is a failure to acknowledge that *"there is no requirement that the words in the claim must match those used in the specification disclosure,"* and that the use of words in a claim that do not match those used in the specification does not comprise the incorporation of new matter *(see In re Robert Skvorecz, CAFC 2008-1221)*. Affects all claims.

Errors 7 through 9 – The claim rejections are based on 35 U.S.C. §112 first paragraph which states: *The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.* Errors in the claim rejections caused by the apparent failure to meet any of the statutory requirements for an enablement rejection include:

Error #7) Failure to acknowledge the fact that the specification meets the requirements of 35 U.S.C. §112 first paragraph. As illustrated by the preceding discussion of errors 1 through 6, the enablement rejection appears to be based of a non-existent standard for written description enablement. Affects all claims.

Error #8) Failure to acknowledge the fact that the claim rejections have been authored by individuals who appear to lack the level of skill in the art required to author such rejections. It is well established that the *"hypothetical 'person having ordinary skill in the art' to which the claimed subject matter pertains would, of necessity have the capability of understanding the scientific and engineering principles applicable to the pertinent art" Ex parte Hiyamizu, 10 USPQ2d 1393, 1394 (Bd. Pat. App. & Inter. 1988)*. It is unlikely that anyone who understood the scientific and engineering principles applicable to the pertinent art would ever suggest Sandretto or Jost as a reference in support of a rejection for the claimed inventions for the reasons described previously. The conclusory statement that the claimed model development process is subjective is another indication that the individuals who authored and/or approved the relevant Office Action do not appear to understand the scientific and engineering principles associated with the pertinent arts. Affects all claims.

Error #9) – Is a failure to acknowledge that the claim rejections for an alleged lack of enablement are non statutory. The instant application incorporated a number of patents and

patent applications by reference that describe methods for model development. If any deficiencies in the written description were actually identified, the proper response in accordance with 37 CFR 1.57 would be to note that material from the cross referenced patents or applications will be considered incorporated by reference as to the inadvertently omitted portion of the specification or drawing(s) instead of issuing and arbitrary and capricious rejection for a lack of enablement. Please see MPEP 608.01(p) and MPEP 2163.07(b) for details re: U.S.P.T.O. policy in this regard. Affects all claims.

Errors 10 and 11 – In Dickinson v. Zurko, 119 S. Ct. 1816, 50 USPQ2d 1930 (1999), the Supreme Court held that the appropriate standard of review of U.S.P.T.O. findings are the standards set forth in the Administrative Procedure Act ("APA") at 5 U.S.C. 706 (1994). The APA provides two standards for review – an arbitrary and capricious standard and a substantial evidence standard. Errors in the claim rejections caused by the apparent failure to meet any of the requirements of the APA include:

Error #10) Is a failure to acknowledge the fact that the claim rejections fail under the substantial evidence standard. Errors 1 through 9 clearly show that the relevant Office Action fails to provide even a scintilla of evidence to support the lack of enablement rejections of all rejected claims and that as a result the rejections fail to meet the substantial evidence standard.

Error #11) Is a failure to acknowledge the fact that the claim rejections fail under the arbitrary and capricious standard. The Appellant respectfully submits that the enablement rejection of 125, claim 126, claim 127, claim 128, claim 129, claim 130, claim 131 and claim 132 also fails to pass the arbitrary and capricious test for a number of reasons including the fact that:

a) as detailed above under errors 1 through 6, the evidence clearly shows that there is no evidence to support the rejection of a single claim;

b) there is no rational connection between the statutory requirements for enablement, the agency fact findings and the rejection of the claims (see errors 7 through 9),

c) there is no rational connection between the rejection for a lack of enablement and the prior agency fact findings associated with U.S. Patent 7,283,982, and

d) prior agency fact-findings have shown that 35 U.S.C. 112 first paragraph requirements for enablement are apparently not always considered during the prosecution and allowance of large company patent applications (i.e. U.S. Patent 7,283,982). This apparently unequal application of the law comprises an apparent violation of 35 USC 3.

Because the claim rejections do not meet either standard of the APA, the prima facie case of a

lack of enablement cannot be properly established.

As detailed above, the Examiner has based the claim rejections under this issue on 11 errors in the facts and the law. When the 11 errors are multiplied by the number of claim rejections affected by each error, the total number of errors associated with the rejection of claims under Issue 8 is eighty eight (88). Because of these errors, the Appellant respectfully submits that the Examiner has failed to produce the evidence required to satisfy the requirements of the APA and/or establish a prima facie case of a lack of enablement for a single claim. Recognizing these clear errors in the grounds for rejection will reverse the lack of enablement rejections of claim 125, claim 126, claim 127, claim 128, claim 129, claim 130, claim 131 and claim 132.

Issue 9 – Whether claim 133, claim 134, claim 135, claim 136, claim 137, claim 138, claim 139 claim 140, claim 141, claim 142, claim 143, claim 144, claim 145, claim 146 and claim 147 are enabled under 35 U.S.C. 112, first paragraph?

The claims are patentable because the claim rejections are based on a number of errors in the facts and in the law. Because of these errors, the arguments presented by the Examiner fail to establish a prima facie case of a lack of enablement for every rejected claim as detailed below.

Errors 1 through 5 - Errors in the claim rejections caused by the apparent failure to establish a prima facie case of a lack of enablement include error 1, error 2, error 3, error 4 and error 5 identified under Issue 8. Since the prima facie case to support the claim rejections has not been established, no rebuttal was (or is) required.

Error 6 - Is a failure to acknowledge that *"there is no requirement that the words in the claim must match those used in the specification disclosure,"* and that the use of words in a claim that do not match those used in the specification does not comprise the incorporation of new matter *(see In re Robert Skvorecz, CAFC 2008-1221)*. Affects all claims.

Errors 7 through 9 – The claim rejections are based on 35 U.S.C. §112 first paragraph which states: *The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.* Errors in the claim rejections caused by the apparent failure to meet any of the statutory requirements for an enablement rejection include:

Error #7) Failure to acknowledge the fact that the specification meets the requirements of 35 U.S.C. §112 first paragraph. As illustrated by the preceding discussion of errors 1 through 6,

the enablement rejection appears to be based of a non-existent standard for written description enablement. Affects all claims.

Error #8) Is a failure to acknowledge the fact that the claim rejections have been authored by individuals who appear to lack the level of skill in the art required to author such rejections. It is well established that the *"hypothetical 'person having ordinary skill in the art' to which the claimed subject matter pertains would, of necessity have the capability of understanding the scientific and engineering principles applicable to the pertinent art" Ex parte Hiyamizu, 10 USPQ2d 1393, 1394 (Bd. Pat. App. & Inter. 1988).* It is unlikely that anyone who understood the scientific and engineering principles applicable to the pertinent art would ever suggest Sandretto or Jost as a reference in support of a rejection for the claimed inventions for the reasons described previously. The fifteen hundred plus (1,500 +) errors in the instant Office Action (memorialized in this Brief on Appeal) is another indication that the individuals who authored and/or approved the relevant Office Action do not appear to understand the scientific and engineering principles associated with the pertinent arts. Affects all claims.

Error #9) – Is a failure to acknowledge that the claim rejections for an alleged lack of enablement are non statutory. The instant application incorporated a number of patents and patent applications by reference that describe methods for model development. If any deficiencies in the written description were actually identified, the proper response in accordance with 37 CFR 1.57 would be to note that material from the cross referenced patents or applications will be considered incorporated by reference as to the inadvertently omitted portion of the specification or drawing(s) instead of issuing and arbitrary and capricious rejection for a lack of enablement. Please see MPEP 608.01(p) and MPEP 2163.07(b) for details re: U.S.P.T.O. policy in this regard. Affects all claims.

Errors 10 and 11 – Errors in the claim rejections caused by the apparent failure to meet any of the requirements of the APA include error 10 and error 11 identified under Issue 8.

As detailed above, the Examiner has based the claim rejections under this issue on 11 errors in the facts and the law. When the 11 errors are multiplied by the number of claim rejections affected by each error, the total number of errors associated with the rejection of claims under Issue 9 is one hundred sixty five (165). Because of these errors, the Appellant respectfully submits that the Examiner has failed to produce the evidence required to satisfy the requirements of the APA and/or establish a prima facie case of a lack of enablement for a single claim. Recognizing these clear errors in the grounds for rejection will reverse the lack of enablement rejections of claim 133, claim 134, claim 135, claim 136, claim 137, claim 138, claim 139 claim

140, claim 141, claim 142, claim 143, claim 144, claim 145, claim 146 and claim 147.

Issue 10 – Whether claim 148, claim 149 and claim 150 are enabled under 35 U.S.C. 112, first paragraph?

The claims are patentable because the claim rejections are based on a number of errors in the facts and in the law. Because of these errors, the arguments presented by the Examiner fail to establish a prima facie case of a lack of enablement for every rejected claim as detailed below.

Errors 1 through 5 - Errors in the claim rejections caused by the apparent failure to establish a prima facie case of a lack of enablement include error 1, error 2, error 3, error 4 and error 5 identified under Issue 8. Since the prima facie case to support the claim rejections has not been established, no rebuttal was (or is) required.

Error 6 - Is a failure to acknowledge that *"there is no requirement that the words in the claim must match those used in the specification disclosure,"* and that the use of words in a claim that do not match those used in the specification does not comprise the incorporation of new matter *(see In re Robert Skvorecz, CAFC 2008-1221)*. Affects all claims.

Errors 7 through 9 – Errors in the claim rejections caused by the apparent failure to meet any of the statutory requirements for an enablement rejection include error 7, error 8 and error 9 identified under Issue 9.

Errors 10 and 11 – Errors in the claim rejections caused by the apparent failure to meet any of the requirements of the APA include error 10 and error 11 identified under Issue 8.

As detailed above, the Examiner has based the claim rejections under this issue on 11 errors in the facts and the law. When the 11 errors are multiplied by the number of claim rejections affected by each error, the total number of errors associated with the rejection of claims under Issue 10 is thirty three (33). Because of these errors, the Appellant respectfully submits that the Examiner has failed to produce the evidence required to satisfy the requirements of the APA and/or establish a prima facie case of a lack of enablement for a single claim. Recognizing these clear errors in the grounds for rejection will reverse the lack of enablement rejections of claim 148, claim 149 and claim 150.

Issue 11 - Whether claim 125, claim 126, claim 127, claim 128, claim 129, claim 130, claim 131 and claim 132 are indefinite under 35 U.S.C. 112, second paragraph?

The claims are patentable because the claim rejections are based on a number of errors in the facts and in the law. Because of these errors, the arguments presented by the Examiner fail to establish a prima facie case of claim indefiniteness for every rejected claim as detailed below.

Errors 1 through 5 – It is well established that: *the definiteness of claim language must be analyzed, not in a vacuum, but in light of: (A) The content of the particular application disclosure; (B) The teachings of the prior art; and (C) The claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made. In reviewing a claim for compliance with 35 U.S.C. 112, second paragraph, the examiner must consider the claim as a whole to determine whether the claim apprises one of ordinary skill in the art of its scope and, therefore, serves the notice function required by 35 U.S.C. 112, second paragraph, by providing clear warning to others as to what constitutes infringement of the patent. See, e.g., Solomon v. Kimberly-Clark Corp., 216 F.3d 1372, 1379, 55 USPQ2d 1279, 1283 (Fed. Cir. 2000). See also In re Larsen, No. 01-1092 (Fed. Cir. May 9, 2001).* Errors in the claim rejections caused by the apparent failure to establish a prima facie case of claim indefiniteness include:

Error #1) – Is a failure to acknowledge that no evidence has been provided to indicate that the rejected claims do not *particularly point out or distinctly claim the disclosed invention to someone of average skill in the art*. In particular, all the claim rejections are based on conclusory statements. Affects all claims.

Error #2) - Is a failure to acknowledge that *"there is no requirement that the words in the claim must match those used in the specification disclosure"* and that the use of words in a claim that do not match those used in the specification does not comprise the incorporation of new matter *(see In re Robert Skvorecz, CAFC 2008-1221)*. Affects all claims.

Error #3) - Is a failure to acknowledge that virtually all of the terms used in the rejected claims have well recognized meanings which allows the reader to infer the meaning of the entire claim with reasonable confidence *(see Bancorp Services, L.L.C. v. Hartford Life Ins. Co., 359 F.3d 1367, 1372, 69 USPQ2d 1996, 1999-2000 (Fed. Cir. 2004).* Affects all claims.

Error #4) - Is a failure to acknowledge that the rejected claims do not contain any terms that do not have proper antecedent basis where such basis is not otherwise present by implication or the meaning is not reasonably ascertainable and that the claims do not contain any terms that are completely dependent on a person's subjective opinion (Halliburton Energy Services, Inc. v. M-I LLC, 514 F.3d 1244, 1255,85 USPQ2d 1663 (Fed. Cir. 2008) and Halliburton, 514 F.3d at 1246, 85 USPQ2d at 1658 (Citing Biomedino, LLC v. Waters Techs. Corp., 490 F.3d 946, 950 (Fed. Cir, 2007). By providing a clear, well documented process that highlights the relevant principles, the specification provides an objective standard for determining the scope of the claimed invention (see Datamize, LLC v. Plumtree Software, Inc., 417 F.3d 1342, 1356.

(Fed. Cir. 2005). Evidence to support these assertions can be found in declaration included in the Evidence Appendix. This declaration represents the only known independent review of the instant patent specification and claims by an individual with average or ordinary skill in the relevant arts under either the pre or post KSR standards for determining the possession of said level of skill. It completely rebuts the Examiner's contentions regarding the claims (see Evidence Appendix, pages 55 through 57). Affects all claims.

Error #5) – Is a failure to acknowledge that the Examiner has failed to establish a prima facie case of indefiniteness by failing to consider the rejected claims as a whole. The claim rejections all rely on conclusory statements regarding a portion of a claim. The complete claims provide additional context that helps define the metes and bounds of the claimed invention. Affects all claims.

Since the prima facie case to support the claim rejections has not been established, no rebuttal was (or is) required.

Errors 6 through 8 – The claim rejections are based on 35 U.S.C. §112 second paragraph which states: *The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.* Errors in the claim rejections caused by the apparent failure to meet any of the statutory requirements for an indefinite claim rejection include:

Error #6) Failure to acknowledge the fact that the rejected claims meet the requirements of 35 U.S.C. §112 second paragraph. As illustrated by the preceding discussion of errors 1 through 5, the indefinite claim rejections appear to be based on an unknown and non-existent standard for claim definiteness. Affects all claims.

Error #7) Failure to acknowledge the fact that the claim rejections have been authored and/or approved by individuals who does not appear to have the level of skill in the art required to author valid claim rejections. It is well established that: *the definiteness of claim language must be analyzed, not in a vacuum, but in light of ... The claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made.* It is also well established that the *"hypothetical 'person having ordinary skill in the art' to which the claimed subject matter pertains would, of necessity have the capability of understanding the scientific and engineering principles applicable to the pertinent art" Ex parte Hiyamizu, 10 USPQ2d 1393, 1394 (Bd. Pat. App. & Inter. 1988).* It is unlikely that anyone who understood the scientific and engineering principles applicable to the pertinent art would ever suggest Sandretto or Jost references in support of the rejection for the claimed inventions for

the reasons described previously. Another indication of the apparent lack of understanding of the scientific and engineering principles can be found in the related appeals. Affects all claims.

Error #8) – Is a failure to acknowledge that the alleged indefiniteness of the claims may be a product of the Examiner's apparent lack of understanding of the relevant rules and statutes. The instant application as filed incorporated a number of patent applications and patents by reference. In accordance with 37 CFR 1.57, the proper response to the identification of an allegedly unsupported claim limitation would be to first require that pertinent material from the cross referenced patent applications or patents be added to the specification instead of issuing an arbitrary and capricious rejection for indefiniteness. In accordance with 37 CFR 1.57 any such material (if identified) would be automatically be considered incorporated by reference. Affects all claims.

Errors 9 and 10 – In Dickinson v. Zurko, 119 S. Ct. 1816, 50 USPQ2d 1930 (1999), the Supreme Court held that the appropriate standard of review of U.S.P.T.O. findings are the standards set forth in the Administrative Procedure Act ("APA") at 5 U.S.C. 706 (1994). The APA provides two standards for review – an arbitrary and capricious standard and a substantial evidence standard. Errors in the claim rejections caused by the apparent failure to meet any of the requirements of the APA include:

Error #9) A failure to acknowledge the fact that the claim rejections fail under the substantial evidence standard. Errors 1 through 8 clearly show that the relevant Office Action fails to provide even a scintilla of evidence to support the rejections for indefiniteness of claim 125, claim 126, claim 127, claim 128, claim 129, claim 130, claim 131 and claim 132 and that as a result the rejections fail to meet the substantial evidence standard.

Error #10) Failure to acknowledge the fact that all the claim rejections fail under the arbitrary and capricious standard. The Appellant respectfully submits that the rejection of claim 125, claim 126, claim 127, claim 128, claim 129, claim 130, claim 131 and claim 132 for indefiniteness also fails to pass the arbitrary and capricious test for a number of reasons including the fact that:

a) as detailed under errors 1 through 5, there is no evidence that the claims are indefinite;

b) as detailed under errors 6 through 8 there is no rational connection between the statutory requirements for claim definiteness, the agency fact findings and the rejection of the claims,

c) there is no rational connection between the rejection for claim indefiniteness and the prior agency fact findings associated with U.S. Patent 7,283,982, and

U.S. Patent 7,283,982	10/743,417
1. A predictive model method, comprising:	125. A computer-implemented predictive model method, comprising:
receiving first input data into an initial model to develop an initial model output;	receiving first input data into a plurality of initial predictive models to develop an initial model configuration by selecting an input data set from the plurality of predictive models using a stepwise regression algorithm after a training of each predictive model type is completed;
receiving second input data and said initial model output as inputs into a first boosting stage to develop an improvement to said initial model output, said second input data comprising one of said first input data, data not included in said first input data, and a combination thereof; and	receiving the input data set from said initial model configuration and a second input data as inputs into a second, induction model stage to develop an improvement to said initial model configuration as an output, said second input data comprising one of said first input data, data not included in said first input data, and a combination thereof; and
outputting a model output resulting from a final boosting stage being one of: said first boosting stage; and a final one of boosting stages successively receiving model output data from a preceding boosting stage.	receiving said second model stage output as an input into a third predictive model stage to develop and output a final predictive model
	where all input data represents a physical object or substance, and where said final predictive model supports a regression analysis.

d) prior agency fact-findings have shown that 35 U.S.C. 112 requirements for written description are apparently not always considered during the prosecution and allowance of large company patent applications. This apparently unequal application of the law comprises an arbitrary and capricious violation of 35 USC 3.

As detailed above, the Examiner has based the claim rejections under this issue on ten errors in the facts and the law. When the ten (10) errors are multiplied by the number of claim rejections affected by each error, the total number of errors associated with the rejection of claims under Issue 11 is eighty (80). Because of these errors, the claim rejections do not meet either standard of the APA and the prima facie case cannot be properly established.

Summarizing the above, the Appellant respectfully submits that the Examiner has failed to produce the evidence required to satisfy the requirements of the APA and/or establish a prima facie case that a single claim is indefinite.

Issue 12 - Whether claim 133, claim 134, claim 135, claim 136, claim 137, claim 138, claim 139 claim 140, claim 141, claim 142, claim 143, claim 144, claim 145, claim 146 and claim 147 are indefinite under 35 U.S.C. 112, second paragraph?

The claims are patentable because the claim rejections are based on a number of errors in the facts and in the law. Because of these errors, the arguments presented by the Examiner fail to establish a prima facie case of claim indefiniteness for every rejected claim as detailed below.

Errors 1 through 5 - Errors in the claim rejections caused by the apparent failure to establish a prima facie case of a claim indefiniteness include error 1, error 2, error 3, error 4 and error 5 identified under Issue 11. Since the prima facie case to support the claim rejections has not been established, no rebuttal was (or is) required.

Errors 6 through 8 – The claim rejections are based on 35 U.S.C. §112 second paragraph which states: *The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.* Errors in the claim rejections caused by the apparent failure to meet any of the statutory requirements for an indefinite claim rejection include:

Error #6) Failure to acknowledge the fact that the rejected claims meet the requirements of 35 U.S.C. §112 second paragraph. As illustrated by the preceding discussion of errors 1 through 5, the indefinite claim rejections appear to be based on an unknown and non-existent standard for claim definiteness. Affects all claims.

Error #7) Failure to acknowledge the fact that the claim rejections have been authored and/or approved by an individual who does not appear to have the level of skill in the art required to author valid claim rejections. It is well established that: *the definiteness of claim language must be analyzed, not in a vacuum, but in light of ... The claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made.* It is also well established that the *"hypothetical 'person having ordinary skill in the art' to which the claimed subject matter pertains would, of necessity have the capability of understanding the scientific and engineering principles applicable to the pertinent art" Ex parte Hiyamizu, 10 USPQ2d 1393, 1394 (Bd. Pat. App. & Inter. 1988).* It is unlikely that anyone who understood the scientific and engineering principles applicable to the pertinent art would ever suggest Sandretto or Jost references in support of the rejection for the claimed inventions for the reasons described previously. Another indication of the apparent lack of understanding of the scientific and engineering principles can be found in the fifteen hundred plus errors memorialized in the instant Brief on Appeal. Affects all claims.

Error #8) – Is a failure to acknowledge that the alleged indefiniteness of the claims may be a product of the Examiner's apparent lack of understanding of the relevant rules and statutes. The instant application as filed incorporated a number of patent applications and patents by

reference. In accordance with 37 CFR 1.57, the proper response to the identification of an allegedly unsupported claim limitation would be to first require that pertinent material from the cross referenced patent applications or patents be added to the specification instead of issuing an arbitrary and capricious rejection for indefiniteness. In accordance with 37 CFR 1.57 any such material (if identified) would be automatically be considered incorporated by reference. Affects all claims.

Errors 9 and 10 – Errors in the claim rejections caused by the apparent failure to meet any of the requirements of the APA include error 10 and error 11 identified under Issue 11.

As detailed above, the Examiner has based the claim rejections under this issue on ten errors in the facts and the law. When the ten (10) errors are multiplied by the number of claim rejections affected by each error, the total number of errors associated with the rejection of claims under Issue 12 is one hundred forty (140). Because of these errors, the Appellant respectfully submits that the Examiner has failed to produce the evidence required to satisfy the requirements of the APA and/or establish a prima facie case of a lack of enablement for a single claim.

Summarizing the above, the Appellant respectfully submits that the Examiner has failed to produce the evidence required to satisfy the requirements of the APA and/or establish a prima facie case that a single claim is indefinite.

Issue 13 – Whether claim 148, claim 149 and claim 150 are indefinite under 35 U.S.C. 112, second paragraph?

The claims are patentable because the claim rejections are based on a number of errors in the facts and in the law. Because of these errors, the arguments presented by the Examiner fail to establish a prima facie case of claim indefiniteness for every rejected claim as detailed below.

Errors 1 through 5 - Errors in the claim rejections caused by the apparent failure to establish a prima facie case of a claim indefiniteness include error 1, error 2, error 3, error 4 and error 5 identified under Issue 11. Since the prima facie case to support the claim rejections has not been established, no rebuttal was (or is) required.

Errors 6 through 8 – The claim rejections are based on 35 U.S.C. §112 second paragraph which states: *The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.* Errors in the claim rejections caused by the apparent failure to meet any of the statutory requirements for an indefinite claim rejection include error 6, error 7 and error 8 identified under Issue 12.

Errors 9 and 10 – Errors in the claim rejections caused by the apparent failure to meet any of the

requirements of the APA include error 10 and error 11 identified under Issue 11.

As detailed above, the Examiner has based the claim rejections under this issue on ten errors in the facts and the law. When the ten (10) errors are multiplied by the number of claim rejections affected by each error, the total number of errors associated with the rejection of claims under Issue 13 is thirty (30). Because of these errors, the Appellant respectfully submits that the Examiner has failed to produce the evidence required to satisfy the requirements of the APA and/or establish a prima facie case of a lack of enablement for a single claim.

Summarizing the above, the Appellant respectfully submits that the Examiner has failed to produce the evidence required to satisfy the requirements of the APA and/or establish a prima facie case that a single claim is indefinite.

Issue 14 – Informalities not identified by the Examiner.

Claims 127, 129, 130, 135, 137, 138, 142, 144 and 145 contain the phrase "wherein an" that should be changed to "wherein the".

8. Conclusion

As detailed above, the claim rejections are supported by over fifteen hundred errors in the facts and the law. These "errors" effectively shield a patent issued to a large company for an "invention" that does not appear to be novel from legal challenge. As such, the claim rejections comprise an apparent abuse of discretion, an apparent violation of 35 USC 3 and an apparent violation of 35 USC 131. Therefore, the Appellant respectfully requests rescission of U.S. Patent 7,283,982. Furthermore, a valid patent application rejection requires substantial evidence (Gartside, 203 F.3d at 1312). As described in the preceding sections, the November 12, 2008 Office Action does not contain any evidence that would support the rejection of a single claim. However, related appeals and the November 12, 2008 Office Action for the instant application do provide substantial evidence that those authoring/signing the Office Action: do not appear to have the requisite level of skill in the pertinent arts, do not appear to adhere to any of the well established statutory requirements for authoring valid claim rejections and appear to have based the claim rejections on the application legal standards that are not applied during the review and allowance of similar applications filed by larger companies.

For the reasons detailed above, the Appellant respectfully but forcefully contends that each claim is patentable. Therefore, reversal of all rejections is courteously solicited.

Respectfully submitted,
Asset Trust, Inc.

/B.J. Bennett/

B.J. Bennett, President,
Dated: January 31, 2009

9. Claims Appendix

125. A computer-implemented predictive model method, comprising:

receiving first input data into a plurality of initial predictive models to develop an initial model configuration by selecting an input data set from the plurality of predictive models using a stepwise regression algorithm after a training of each predictive model type is completed;

receiving the input data set from said initial model configuration and a second input data as inputs into a second, induction model stage to develop an improvement to said initial model configuration as an output, said second input data comprising one of said first input data, data not included in said first input data, and a combination thereof; and

receiving said second model stage output as an input into a third predictive model stage to develop and output a final predictive model

where all input data represents a physical object or substance, and

where said final predictive model supports a regression analysis.

126. The method of claim 125, wherein said second model stage comprises an induction algorithm that receives a second input data and an input data set from the initial model configuration and transforms said inputs into a summary comprising a second stage model output.

127. The method of claim 125, wherein an input data set from said initial model configuration comprises the input data to said initial model configuration after training and model selection is complete.

128. The method of claim 125, further comprising: using a plurality of independent subpopulations to evolve a plurality of candidate predictive models with a plurality of genetic algorithms to identify a set of one or more changes that will optimize a predictive model output value for a single criteria or multiple criteria.

129. The method of claim 125, wherein an initial predictive model is selected from the group consisting of CART; projection pursuit regression; generalized additive model (GAM), redundant regression network; boosted Naïve Bayes Regression; MARS; linear regression; and stepwise regression.

130. The method of claim 125, wherein an induction model is selected from the group consisting of entropy minimization, LaGrange, Bayesian and path analysis.

131. The method of claim 125, wherein the use of a tournament to select a predictive model type eliminates a need for multiple processing stages.

132. The method of claim 125, wherein the final predictive model comprises a transform predictive model.

133. An apparatus to perform a predictive model method, said apparatus comprising:
means for receiving, processing and storing data;
means for completing the three stage predictive model method of claim 125, and
a graphical user interface to allow a user to identify one or more data sources for said predictive modeling method, and to at least one of display, print, and save to one of a printer, a data file, and an application program using the output resulting from the final, third stage model
where said final predictive model supports a regression analysis.

134. The apparatus of claim 133, wherein said second model stage comprises an induction algorithm that receives a second input data and an input data set from the initial model configuration and transforms said inputs into a summary comprising a second stage model output.

135. The apparatus of claim 133, wherein an input data set from said initial model configuration comprises the input data to said initial model configuration after training and model selection is complete.

136. The apparatus of claim 133, further comprising: using a plurality of independent subpopulations to evolve a plurality of candidate predictive models with a plurality of genetic algorithms to identify a set of one or more changes that will optimize a predictive model output value for a single criteria or multiple criteria.

137. The apparatus of claim 133, wherein an initial predictive model is selected from the group consisting of CART; projection pursuit regression; generalized additive model (GAM), redundant

regression network; boosted Naïve Bayes Regression; MARS; linear regression; and stepwise regression.

138. The apparatus of claim 133, wherein an induction model is selected from the group consisting of entropy minimization, LaGrange, Bayesian and path analysis.

139. The apparatus of claim 133, wherein the use of a tournament to select a predictive model type eliminates a need for multiple processing stages.

140. A machine-readable medium tangibly embodying a program of machine-readable instructions executable by a digital processing apparatus to perform a predictive model method, comprising:

receiving first input data into a plurality of initial predictive models to develop an initial model configuration by selecting an input data set from the plurality of predictive models using a stepwise regression algorithm after a training of each predictive model type is completed;

receiving the input data set from said initial model configuration as an input into a second, induction model stage to develop an improvement to said initial model configuration as an output; and

receiving said second model stage output as an input into a third predictive model stage to develop and output a final predictive model

where said final predictive model supports a regression analysis.

141. The machine readable medium of claim 140, wherein said second model stage comprises an induction algorithm that receives a second input data and an input data set from the initial model configuration and transforms said inputs into a summary comprising a second stage model output.

142. The machine readable medium of claim 140, wherein an input data set from said initial model configuration comprises the input data to said initial model configuration after training and model selection is complete.

143. The machine readable medium of claim 140, further comprising: using a plurality of independent subpopulations to evolve a plurality of candidate predictive models with a plurality of

genetic algorithms to identify a set of one or more changes that will optimize a predictive model output value for a single criteria or multiple criteria.

144. The machine readable medium of claim 140, wherein an initial predictive model is selected from the group consisting of CART; projection pursuit regression; generalized additive model (GAM), redundant regression network; boosted Naïve Bayes Regression; MARS; linear regression; and stepwise regression.

145. The machine readable medium of claim 140, wherein an induction model is selected from the group consisting of entropy minimization, LaGrange, Bayesian and path analysis.

146. The machine readable medium of claim 140, wherein the use of a tournament to select a predictive model type eliminates a need for multiple processing stages.

147. The machine readable medium of claim 140, wherein the machine readable medium comprises a plurality of intelligent agents.

148. A computing infrastructure, comprising the machine-readable code of claim 140 integrated into the computing apparatus of claim 133, wherein the code in combination with the apparatus is capable of performing the method of claim 125.

149. The computing infrastructure of claim 148, wherein a second model stage transforms one or more data inputs into a summary for use in the final model.

150. The computing infrastructure of claim 148 that is capable of performing the method of claim 138.

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10. Evidence Appendix

Pages 55 - 57 declaration under Rule 132 first submitted June 27, 2008

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No. :	10/746,673
Applicant :	Jeff S. Eder
Filed :	January 18, 2001
Art Unit ::	3629
Examiner :	Freda Nelson
Docket No. :	AR - 62
Customer No. :	53787

DECLARATION UNDER RULE 132

I, Rick Rauenzahn, do hereby declare and say:

My home address is 529 Calle don Leandro, Espanola, New Mexico; I have a B.S. degree in chemical engineering from Lehigh University, an S.M. degree in chemical engineering from The Massachusetts Institute of Technology and a Ph.D. in chemical engineering from The Massachusetts Institute of Technology;

I have worked in the mathematical modeling field for 25 years, concentrating in the disciplines of fluid mechanics, turbulence modeling, numerical methods for partial differential equations, radiation hydrodynamics, and strength of materials. I also have extensive knowledge of computer system administration, particularly for Windows-based, Linux, and Unix systems; I have been employed by Los Alamos National Laboratory and Molten Metal Technologies for the past 23 years.

I further declare that I do not have any direct affiliation with the application owner, Asset Reliance, Inc. I met the inventor for the first time in April 2006. I joined the Technical Advisory Board for Knacta, Inc., a company run by the inventor in May of 2006. I have never discussed this patent application or any of the other patent applications owned by Asset Reliance with the inventor. Knacta, Inc. has a license to the intellectual property associated with this application.

On July 29, 2006, I was given a copy of U.S. Patent Application 10/746,673 entitled "an interactive sales performance management system" filed in the United States Patent Office on December 24, 2003 as well as the cross referenced application 09/940,450, filed August 29, 2001. Until that time I had not read either of these two patent applications. I have studied the entire specification in order to closely analyze the claims and drawings. I am totally familiar with the language of the claims and conversant with the scope thereof. I completely understand the invention as claimed.

Based on my experience and training in the field of mathematical modeling and electronic data processing, I have concluded that it would be straightforward for anyone of average skill in the relevant arts to duplicate the interactive sales performance management system using the information in U.S. Patent Application 10/746,673 together with the patent application it cross-references.

Specifically, U.S. Patent Application 10/746,673 together with the patent application and patent it cross-references fully describes:

1) A performance model that quantifies and impact of a plurality of elements and subelements of value on a value of a business by category of value where the categories of value are selected from the group consisting of current operation, real option, market sentiment and combinations thereof;

Based on these and other considerations, it is my professional opinion that U.S. Patent Application 10/746,673 together with the patent application and patent it cross-references could be used to recreate and practice a method of and system for interactive sales performance management as claimed.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patents issuing thereon.

Signed.

/Rick M. Rauenzahn/

Rick Rauenzahn
Date: September 27, 2006

11. Related Proceedings Appendix - None